

WEEKLY SOVTHERN INDVSTRIAL RAILROAD FINANCIAL NEWSPAPER.



### **EDITORIAL**

The South Must Raise Foodstuffs - 5
The United States Capturing Canada's
West India Trade - - 5
The Production of Phosphate Rock - 6
Georgia and the World's Fair - 6
A Southern Bleachery - - 6
The South's Industrial Growth—
Quarterly Review - - 7
An Immense Lumber Contract - 10
The Effect of Pauper Immigration - 41
Demand for Dwelling Houses - 41
Editorial Short Notes - 5, 6, 10, 41

### CONSTRUCTION DEPARTMENT.

Full particulars regarding all industrial enterprises organized in the South during the past week - 38 40 Burned - - - - 40 Building Notes - - - - 40 Machinery Wanted - - - - 42

### INDUSTRIAL NOTES.

Vol.XX.

### RAILROAD DEPARTMENT

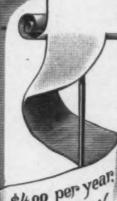
Railroad Construction - - - 35 Bonds, Stocks and Other Notes

### CORRESPONDENCE AND NOTES.

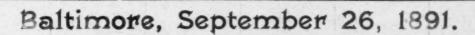
A Market for American Manufactured Cotton Goods in South America Best Outlook in Iron Trade for Two Years -An English Opinion of the Norfolk & Western Railroad -Florida Phosphates -One-Half of the World's Railroad Mileage in the United States - -Great Lumber Mill in a Great Lumber Region General Notes Winston-Salem (N. C.) Matters -Notes from Norfolk, Va. - -C. P. Huntington and Newport News Good Work for the South - - -Increasing Industrial Activity Throughout the South Plans to Develop a Great Water-A Big Lumber Combination -Literary Notes - - - Front Royal (Va.) Notes - -Buena Vista (Va.) News - - -Middlesborough, Ky. Vitrified Bricks as Paving Material

### FINANCIAL DEPARTMENT.

New Banks - - - - - 36 Bonds, Stocks and Other Notes - - 36



\$4.00 per year.
Single Gopy
10 Gents.



KING.

KING

### Classified Index of Advertisers.

[FOR "ALPHABETICAL INDEX" WITH PAGES, SEE PAGE 73.]

Acid Chambers. Valk & Murdoch Iron Works.

Ingersoll-Sergeant Rock
Drill Co.
Rand Drill Co.

Architects. Collins & Hackett. Brothers de Sassure & Waters.
Felkel.
F. Gray.
tva, Naefi & Co.
ilson & Huggins.
R. Makepeace & Co.
bert Miller.
tokwood, Greene& Co.
ew, Baldwin & Co.

Architectural Iron Work. Iron Work.
Champion Iron Co.
J. E. Bolles & Co.
E. T. Barnum.
Fred J. Meyers Mfg. Co
Belmont Iron Wks., Ltd
T. H. Brooks & Co.
Auto. Sprinklers. Neracher Sprinkler Co. Providence Steam & Gas Pipe Co.

Bankers& Brokers W. P. Rice.
N. W. Harris & Co.
Cabell & Moseley.
Alex. Brown & Sons.
Jno. L. Williams & Son.
Middendorf.Oliver & Co
Moorehead & Ogden. Enrol Machinery
(See Wood-Working
Machinery.)
E. & B. Holmes.

Bath Tubs. Haines, Jones & Cad-bury Co.

Bearings.
North American Metal-ine Co. Rells.

ane & Co. . . nry McShane & Co.
Belting.

' addox Wire Belt. Co.
Main Belting Co.
Chesapeake Belting Co.
Sashville Rapid Tann'g
& Belt Mfg. Co.
Gandy Belting Co.
Chicago Rawh. Mfg. Co.
Page Belting Co.
Shultz Belting Co.
Belting Co.
Belting Co.
Belting Co.

H. C. Mey. ffrey Mig. Co. ink Belt Enginer's Co. Belt Holders. tiley Lumber Co. Blacksmiths' Tools.

Bullock Bellows Co. M. L. Edwards Co. Holt Mfg. Co. Blinds.

S. J. Fisher. Willer Mfg. Co. Blowers and Ex-haust Fans.

Barney Vent. Fan Co. Geo. P. Clark. M. P. Sattara Geo. P. Clark. M. P. Satterthwaite. Huyett & Smith Mfg.Co. B. F. Sturtevant Co.

Boiler Fronts and Fittings. Casey & Hedges Boil.Ca E. Keeler Co. Vulcan Iron Works Co. Boilers.

Bollers.
(See also Machinery.)
Wright & Adams Co.
Ravenna Boller Works,
Richmond Locomotive
& Machine Works.
Babcock & Wilcox Co.
Geo. R. Lombard & Co.
H. Dudley Coleman Machinery Co., Limited
Greer Machinery Co.
Hazelton Tripod Boiler
Co.

Greer Machinery Co.
Hazelton Tripod Boiler
Co.
A. B. Farquhar Co.
Buckeye Engine Co.
Stearns Mfg. Co.
Jerome Moltz.
Westinghouse Mach.Co
C& G. Cooper & Co.
F. A. Estep.
New York Safety Steam
Fower Co.
Charleston Iron Works
Chandler & Taylor Co.
E. T. Copeland & Co.
Skinner Engine Co.
E. Keeler Co.
Talbott & Sons.
Corliss Steam Engine Co.
Essa Fdy. & Mach. Wks.
Globe Machine Co.
Jas. Leffel & Co.
C. H. Dutton & Co.
Casey & Hedges Boil.Co
F. M. Arthur & Co.
Leffel Water Wheel &
Engine Co.
Cleveland & Hardwick,
Fulton Boiler Works.
Dan Shea & Co.
J. C. McNeil Co.
Oil Well Supply Co.
Hedine Safety Boiler Co.
Tudor Boiler Mfs. Co.
Yalk & Mardoch l Wks.
Frick Co.
Harrison Sfty, Fl'r, Wks.

Rochester Machine Tool Wks. Wks.
Sharon Boller Wks, Lim
Geo. W. Tifft. Sons & Co
Taylor Mfg. Co.
Webster, Camp & Lane
Machine Co.

Boiler Appliances

Sons.
Rue Mig. Co.
American Well Works.
Casey & Hedges Boil. Cotiliwell & Bierce Mig.
Co.
Mason Regulator Co.
Poppes Mig Co.

Bolts, Rivets and Nuts. Hoopes & Townsend.

Hoopes & Townsend.
Briek & Clay Working Machinery
& Supplies.
C. & A. Potts & Co.
Anderson Foundry &
Machine Works.
Hy. Martin B.M. Mfg. Co
H. Brewer & Co.
E. M. Freese & Co.
Adrian Brick & Tile
Machine Co.
Kells & Sons.
J. W. Penfield & Son.
D. J. C. Arnold.
Frey-Sheckler Co.
Chambers Bros. Co. W. Penfield & Son.
J. C. Arnold.
rey-Sheckler Co.
hambers Bros. Co.
letcher & Thomas.
W. Raymond & Co.
lex. K. Rarig & Co.
L. Sword & Son.

Bridges.
Berlin Iron Bridge Co. Business Oppor-tunities.

"Capital."
Boone Lumber Co,
G. B. Kimball, Trustee.
Tampa Phosphate Co,
Arthur Stewart.
M. V. Richards.
Cabell & Moseley.
Maryland Non-Acid
Phosphate Co.
N. K. Invo. Canning Mehry.

Niag. Stamp'g & T'l Co. Warfield Mfg. Co. Warfield Mig. Co.
Card Clothing.
(See Textile Machines
and Supplies.)

and Supplies.)
Cars.
(See R. R. Equipment and Supplies.)
Castings.
Todd Pulley & Shafting Works.
Southern Mal. Iron Co. Ross-Meehan Brake Shoe Foundry Co. A. Whitney & Sons. Knoxville Car Whl. Co. Chester Steel Cast'g Co.

Chester Steel Cast'g Co. Car Wheels. Wm. A. Cather & Bro. Knoxville Car Whl. Co. A. Whitney & Sons. Car Works Equip-Geo. Piace

Ceiling. Fred J. Bischoff & Co. Cement.
Howard Hydraulic Cement Co.

ment Co.

Chemist,
Frederic P. Dewey.
Jno. Sanderson,
Walker Bowman,
Ledoux & Co.
Mariner & Hoskins,
Stein & Schwars. Clutches (Frict'n.) Allentown Foundry & Machine Co.
The Moore & White Co.

Companies. Berlin Iron Bridge Co. Simpkin & Hillyer. Simpkin & Hillyer.
Contractors' Supplies.
Wm. A. Cather & Bro.
Marion Stm. Shovel Co.
Bucyrus Steam Shovel
& Dredge Co.
Contr'is' Plant Mfg. Co.
Kilboura & Jacobs Mfg.
Co. Kilbourum Joseph Co. F. C. Austin Mfg. Co. F. C. Austin Mfg. Co. G. L. Stuebner & Co. Contracting and Consulting En-gineers and Machinists.

Machinists,
Oscar Saabye,
Wright & Adams Co.
D. R. Lean.
Jno. T. Foley,
W. H. Gibbes, Jr. & Co.
New York Safety Steam
Power Co.
S. B. Moaby & Co.
Enos L. Moore,
W. A. Calboan.
Fava, Naeff & Co.
American PipeMnfg.Co.
Jno. MacLeod.
D. D. Rogers.

Chas. Paine & Sous Stein & Schwarz. Simpkin & Hillyer.

Conveyors, hornburgh & Gles feller Mig. Co. ebster Mig. Co. falker & Elliott. H. C. Mey. H. C. Mey. J. Clark & Co. W. Caldwell & Son H. W. Caldwell & Son. McLanahan & Stone. The Jeffrey Mfg. Co. Link Belt Engin'ng Co. Corrugated Iron. Niles Iron & Steel Roof-ing Co. Globe Iron Roofing & Corrugating Co.

J. H. Eller & Co.

Canton Steel Roof g Co.

Cincinnati Corruga. Co.

Holton Iron Roof g Co.

Kanneberg Roofing Co.

Cambridge Roofing Co.

Cot'n Compresses. Campbell Cot. Com. Co. Cotton Gins.
Geo. R. Lombard & Co.
Talbott & Sons.
Van Winkle Gin &
Mach. Co.

Cotton Seed Oil Machinery. Machinery.

G. H. Bushnell Co.
Cardwell Mach. Co.
Thornburgh & Glessner
Van Winkle Gin &
Mach. Co,
Talbott & Sons.

Cranes. Vulcan Iron Wks. Co. Detroit Fdy. Equip. Co. Walker Mfg. Co.

Walker Mig. Co.
Crushers (Cornand Cob.)
Foos Mig. Co.
Union Foundry & Macchine Works.
Waldron & Sprout.

Crushers & Break-ers (Ore, Rock, &c.) ers (Ore, Rock, &c.)
Sturtevant Mill Co.
Allentown Foundry &
Machine Co.
Gates Iron Works.
Amer. Ore Mchy. Co.
Prisbee-Lucop Mill Co.
Stedman's Foundry &
Machine Works.
Walker & Elliott.
Lloyd Booth Co.
Valk & Murdoch Iron
Works.
James Murray & Son.
Depricks.

Derricks.
Simmerly Derrick Co.
Contract. Plant Mig.Co.
Dredges & Steam
Shovels.

Shovels.
Marion Stm. Shovel Co.
Copeland & Bacon.
Bucyrus Steam Shovel
& Dredge Co.
F. C. Austin Mfg. Co.
Southern Equipment Co
Vulcan Iron Works Co. Drills (Prospect'g)
Diamond Prosp'ting Co.
M. C. Bullock Mfg. Co.

amond Prosp'ting ( C. Bullock Mfg. ( Drills (Rock.) M. C. Bullock Míg. Co. Rand Drill Co. Diamond Prosp'ting Co. Ingersoll-Sergeant Rock Drill Co.

Rock Drill Co.
Drills (Wood and
Metal.)
Graham Twist Drill Co.
Silver Mg. Co.
W. F. & Jno. Barnes Co.
Clevel'd Twist Drill Co.
Lodge & Davis Machine
Tool Co.
Bickford Drill Co.
Foos Mg. Co.

Dry Kilms.

Hayett & Smith Mfg. Co.

Dry Kilms.

Hayett & Smith Mfg. Co.

Eleotric Lighting

Keystone Electric Co.

L. N. Cox.

Woodbridge & Turner

Engineering Co.

Edison Gen. Elec. Co.

Simpkin & Hillyer.

Warfield Mfg. Co.

Card Electric Motor &

Dynamo Co.

Brush Electric Co.

Thomson-Honston Elec
tric Co.

Schuyler Electric Co.

Keisler Elec. Light Co.

Electric Railway and Motors.

and Motors,
Keystone Electric Co.
L. N. Cox.
Cincin. Elec. Eleva. Co.
Woodbridge & Turner
Engineering Co.
Ediaon Gen. Elec. Co.
Thomson-Houston Electric Co. tric Co. Brush Electric Light Co

Electric Light Co
Electrical Supplies,
Billings & Spencer Co.
Elevators,
A. B. See Mig. Co.
Cincin. Elec. Eleva. Co.
Jas. H. Curran.
Am. Elect. Elevator Co.
James Bates.
Leffrey Mig. Co.
Morse, Williams & Co.

Emery Wheels. (See Grinding and Pol-ishing Machinery.

Engineers. Oscar Saabye. Sinclair & Leavenworth Josiah Pierce, Jr. Gen. N. Conlv. McIlwaine, Nicholas & Josiah Pierce, Jr.
Geo. N. Conlv.
McIlwaine, Nicholas &
Dafter.
Woodbridge & Turner
Engineering Co.
W. H. Gibbes, Jr. & Co.
W. A. Calhoun.
Jerome Moltz.
A. W. Swanitz.
F. Felkel.
S. B. Mosby & Co.
A. F. Gray.
Oin H. Landreth.
J. C. Temple.
Chas. Paine & Sons.
D. D. Rogers.
Jno. MacLeod.
Fragluos.

Engines. (See also Machinery.)
Edward P. Allis & Co.
Shipman Engine Co.
A. F. Bartlett & Co.
Wright & Adams Co.
Dake Engine Mfg. Co.
Geo. R. Lombard & Co.
Smith-Courtney Co.
Phila. Engineer'g Wks.
H. Dudley Coleman Machinery Co.
Limited Greer Machinery Co.
A. B. Farquhar Co.
Buckeye Engine Co.
Ball & Wood Co.
Westinghouse Mach. Co
C. & G. Cooper & Co.
New York Safety Steam
Power Co.
A. E. Eastep. (See also Machinery.)

C. & G. Cooper & Co.
New York Safety Steam
Power Co.
F. A. Eastep.
Huyett & Smith Mif. Co
Stearns Mfg. Co.
Ball Engine Co.
Charleston Iron Works
E. T. Copeland & Co.
Skinner Engine Co.
Penna. Machine Co.
Corliss Steam Eng. Co.
Jas. Lefiel & Co.
Bass Fdy. & Mach. Wks.
American Well Works.
Globe Machine Co.
Casey & Hedges Boil. Co
F. M. Arthur & Co.
Racine Hard. Mfg. Co.
Lefiel Water Wheel &
Engine Co.
C. H. Dutton & Co.
Bryant Safe. Eng. Wks.
Wm. Tod & Co.
Lawrence Machine Co.
A. K. Rarig Co.
Cleveland & Hardwick.
Talbott & Sons.
Chandler & Taylor Co.
Oil Well Supply Co.
Prick Co.
Valk & Murdoch I. Wks.

Tatto.
Chandler &
Oil Well Supply
Frick Co.
Valk & Murdoch I. Wks.
Geo. W. Tifft, Sons & Co
achester Mch. Tool

Geo. W. Tifft, Sons & Co Rochester Mch. Tool Wks Taylor Mfg. Co. Valley Iron Works. Webster, Camp & Lane Machine Co.

Maconie Co.

Engines (Gas.)
Van Duzen Gas & Gasoline Engine Co.
M. P. Satterthwaite.
Otto Gas Engine Wks.
Engines (Keroseule.)
Shipman Engine Co.

Sene.)
Shipman Engine Co.
Whitman & Barnes
Mfg. Co.
Rochester Machine Tool
Works. Engravers.

Balto. Engraving Co. Photo Elec. Eng. Co. Excavators. Marion Stm. Shovel Co. Bucyrus Steam Shovel & Dredge Co. Vulcan Iron Works.

Feed Wat'r He Jas. Berryman. Wm. Baragwanath & s. es Mfg. Co.

Hoppes Mfg. Co.
Fencing.
Mast, Foos & Co.
H. Balderston & Sons.
F. M. Arthur & Co.
Belmont Iron Wks., Ltd
Dufur & Co.
Tred. J. Meyers Mfg.Co.
Ludlow Saylor Wire Co. Fertilizer Mchry.

Charleston Iron Works
Thornburgh & Glessner
Walker & Elliott.
C. H. Dempwolf & Co.
Valk & Murdoch I.Wks. Files. Hy. Disston & Sons, Inc. Covel Mfg. Co. Nicholson File Co.

Flour & Grist Mill Machinery and Supplies. Supplies.
Weller Mfg. Co.
Thornburgh & Glessner
J. B. Allfree Mfg. Co.
Nordyke & Marmon Co.
Case Mfg. Co.
Talbott & Sons.
H. W. Caldwell & Son.
Waldron & Sprout.
Fine Cleaners.

Flue Cleaners. Frontier Mfg. Co.

Foot-Power Ma-chinery. W.F. &. Jno. Barnes Co. H. L. Shepard. Force Pumps. Mast, Foos & Co.

Mast, Foos & Co.
Forges.
Pitts. Port. Forge Co.
Holt Mig. Co.
B. F. Sturtevant Co.
Miner & Peck Mig. Co.
Bradley & Co. Foundry Mehry. Byram & Co.
Detroit Fdy. Equip. Co.
Casey & Hedges Boil. Co.
Knoxville Car Whl. Co.

Fuel Gas Pro-ducers. T. H. Brooks & Co. Furnace Builders. Enos L. Moore D. R. Lean. A K. Rarig Co. Stein & Schwarz Gas Machines and Appliances. Harris. Boiler & Míg.Co

Gauge Glass. ancoast & Maule. Grain Elevator Supplies. H. W. Caldwell & Son

H. W. Caldwell & Son-Grinding and Pol-ishing Mchry. Springfield Em'y Wheel Mfg. Co. Waltham Emery Wl. Co Northampton Emery Wheel Co. Norton EmeryWheel Co.

Hammers, (Steam and Power.) Bement, Miles & Co. Hackney Hammer Co. Long & Allstatter Co. Belden Machine Co. Bradley & Co. Knoxville Car Whl. Co.

Handle Mehry.

(See Wood-working Machinery.) Hardware Spe-cialties.

L. S. Starrett.
Perfection Sash Bal. Co.
S. J. Fisher.
Belden Mch. Co.
Van Wagoner & Williams Co. liams Co. Cronk Hanger Co. Wier & Wilson. Covert Mfg. Co. Hay Tools.

Hay Tools.
Silver Mg. Co.
Heating Apparatus.
T. H. Brooks & Co.
Harris. Boiler & Mg. Co
Pierce. Butler & Pierce
Mg. Co.
Huyett & Smith Mg. Co
B. F. Sturtevant Co.

B. F. Sturtevant Co.

Holsting Machinery.
Wright & Adams Co.
Am. Elect. Elevator Co.
Am. Elect. Elevator Co.
Jno. F. Byers Mach. Co.
M. C. Bullock Mig. Co.
Contractors' Plt. Mig. Co.
Copeland & Bacon.
Diamond Prospect. Co.
Knoxville Car Whi. Co.
Vulcan Iron Works Co.
Ryan-McDonald Mig. Co.
Webster, Camp & Lane
Machine Co.

Contractors Hoist.

Machine Co.

Chain Hoist.

E.Harrington, Son & Ce.

Rope Hoist.

Palmer, Cunningham &

Co., Limited.

Hoop Machines.

Edwin Bell & Sons Co.

Hose.

Hose.
Waterbury Rubber Co
Hydrants.
Ladlow Valve Mfg. Co.
Hydraulic Macchinery.
Watson & Stillman Watson & Stillman Wm. Tod & Co. Boomer & Boschert Press Co.

Ice-Making Ma-chinery. chinery.
Colum. Iron Whs. Co.
A. W. Swanitz.
Van Winkle Gin & Machinery Co.
Hercules Iron Works
Richmond Ice Mch. Co
Fred W. Wolf Co.
Frick Co.

Injectors. American Injector Co. Penberthy Injector Co. National Tube Wks.Co. Jenkins Bros. Rue Mfg. Co.

Insurance American Casualty In-surance & Security Co Employers' Liab'ty As-surance Corp'n, Lim. Hartford St. Boller Insp. and Insurance Co. Iron and Steel. Chas. Burgess.
Iron Buildings
and Roofs.
Berlin Iron Bridge Co.

Iron Working Machinery. Bradford Mill Co. Bement, Miles & Co. Sebastian-May Co. Stow Mig. Co.
Smith-Courtney Co.
Penna. Machine Co.
Globe Machine Co.
Globe Machine Co.
Glant Key Seater Co.
G. D. Colton & Co.
Stow Flex. Shaft Co. Lim
E. Harrington, Son & Co.
Lodge & Davis Machine
Tool Co.
Lathe & Morse Tool Co.
Lathe & Morse Tool Co.
Lathe & Morse Tool Co.

Jacks. Joyce, Cridland & Co. Jacks (Hydraulic)
Watson & Stillman.
Knitting Machinery.
Nye & Tredick.

Laundry Ma-chinery. F. M. Watkins.
Boss Washing Mach.Co
Troy Laundry Machinery Co., Limited.
The A. M. Dolph Co.

Lights (Factory and Outdoor.) (See also R. R. Equipm't and Supplies.) Richmond Loc. & Mch. and Supplies.)
Richmond Loc. & Mch.
Wks.
H. K. Porter & Co.
Baldwin Loco. Works.

Lubricants. Wm. C. Robinson & Son Lumber.

E. D. Albro Co. Jesse Thompson & Co. T. J. Shryock & Co. E. B. Hunting & Co.

Machinery.

A. F. Bartlett & Co.
M. P. Satterthwaite.
Geo. R. Lombard & Co.
Chester Bertolette & Co.
Colum. Iron Wks. Co.
Penna. Mach. Co., Lim.
E. T. Copeland & Co.
W. D. Dunning.
Wm. Tod & Co.
Miner & Peck Mig. Co.
Lawrence Machine Co.
Wobster Mig. Co.
Southern Equipm't Co.
M. C. Bullock Mig. Co.
Knoxville Car Whl. Co.
S. C. Forsaith Mch. Co.
Warfield Mig. Co.
F. A. Estep.

Warfield Mfg. Co.
F. A. Estep.
Stow Flexible Shaft Co.,
Limited.
Morris Machine Wks.,
Richmond Loc. & Mch.,
Wks.,
Alex. K. Rarig & Co.
S. Morgan Smith.,
McLanahan & Stone.
Vulcan Iron Works Co.

Machinery & Tools (Second Hand.) (Second Hand.)
Maslins.
Economy Machinery Co
George Place.
Robt. Wetherill & Co.
Jas. Jenks.
N. V. Machinery Depot
Prentiss Tool & Sup. Co.
L. F. Seyfert.
S. C. Forsaith Mch. Co.
Mill Engineers.

Mill Engineers. Lockwood, Greene & Co. C. R. Makepeace & Co. Drew, Baldwin & Co.

C. R. Makepeace & Co.
Drew, Baldwin & Co.
Mill Supplies,
E. C. Atkins & Co.
H. Dudley Coleman Machinery Co., Limited
Queen City Supply Co.
De Loach Mill Mig. Co.
Covel Mig. Co.
Talbott & Sons.
Waters & Garland,
James Smith & Co.
Mineral Wool.
U. S. Mineral Wool.
U. S. Mineral Wool.
Mineral Wool.
Mineral Wool.

Mineral Wool Co.
Mining, Quarrying & Stone-Cutting Mehry,
Wright & Adams Co.
Allentown Foundry &
Machine Co.
Gates Iron Works,
American Well Works,
Steam Stone Cutter Co.
Rand Drill Co.
Drill Co.
Diamond Prosp'ting Co.
M. C. Bullock Mg. Co.
Copeland & Bacon.
Jeffrey Mg. Co.
Liveoln Iron Works.
Miscellianeous.

Miscellaneous. W. M. Fuller, Jr. Washington Hydraulic Press Brick Co. Southern Information

H. H. Babcock Co.
Engineer'g Magaz'e Co
H. V. & H. W. Poor
Hanson, Van Winkle
& Co.
Clevel'd Stm. F. & S. Co.
Hunt & Connell, Lim.
A. W. Gump & Co.
Edwin Bell & Sons Co.
John Ryan Co.
Walcot & West.
Colonnade Hotel,
I. J. Hoffstaetter.
Corporation Book Co. Colonnade Hotel,
I. J. Hoffstaetter,
Corporation Book Co.
Jno. G. Mengel & Co.
Smith Prem'r Type. Co.
Claflen Mfg. Co.
Johnson & Field.
Chamberlin Mfg. Co.
C. A. Gambrill Mfg. Co.
C. A. Gambrill Mfg. Co.
A. Candrill Mfg. Co.
Alt & Wiborg Co.
Record Printing House.

Office Furniture. Globe Co. A. H. Andrews & Co. Racine Hard. Mfg. Co.

Oil Cups. Crescent Mfg. Co. Wm. Powell Co. Oils.

Olls.
Wm. C. Robinson & Sc
Ore Washers.
Jenkins & Lingle.
McLanahan & Stone. Packing. Crandall Packing Co. Garlock Packing Co. James Smith & Co. Page Belting Co. Jenkins Bros.

Paint. H. W. Johns Mfg. Co. Long Steel & Iron Roof-ing Co. N. T. Pate & Co. Jos. Dixon Crucible Co.

Paper and Pulp Mill Machinery. The Moore & White Co. Perforated Metal. Harrington & King Perforating Co.

Phosphor Bronze Phosph. Bron. Sn elt. Co

Pipe(Cast Iron and Steel.) Steel.)
American PipeMnfg.Co.
The Glamorgan Co.
Spiral Weld Tube Co.
Chattanooga Foundry
and Pipe Works.

Pipe Bend'g Wks. Farrell & Rempe. Jas. D. Cardell & Co.

Pipe Handling Wells Machine Works.
Pancoast & Maule.
D. Saunders' Sons.

Pipe Fittings. Pancoast & Maule. Plumbers' Sup-plies & Tools

plies & Tools.
Louis W. Gay.
Haines, Jones & Cadbury Co.
Pancoast & Maule.
D. Saunders' Sons. Presses (Power.)

Presses (Power,)
H. Dudley Coleman Machinery Co., Limited,
G. H. Bushnell Co.
Watson & Stillman.
Cardwell Machine Co.
Miner & Peck Mfg. Co.
Boomer & Boschert
Press Co.

Press Co.

Pulleys, Shafting and Hangers,
Todd Pulley & Shafting Works.
C. & A. Potts & Co.
Walker & Elliott.
Webster Mig. Co.
Van Winkle Gin & Mach. Co.
Pitzsimons & Mach. Co.
Ohio Pulley & Mach. Co.
Taper-Sleeve Pul. Wks.
James Smith & Co.
Webster, Camp & Lane
Machine Co.

Pumps (Hand and Power.) Watson & Stillman.
American Well Works.
Deming Co.
Van Winkle Gin &
Mach. Co.

Mach. Co.

Pumps (Steam.)

Smith & Valle Co.

Morris Machine Co.

J. H. Day & Co.

Battle Creek Macby. Co
Van Dusen & Tift.

Watson & Stillman.

American Well Works.

Canton Steam Pump Co.

Lawrence Machine Co.

Barr Pump g Engine Co
Deane S. P. Co.

Dehn Maslin & Son.

Hy. R. Worthington.

Pulsometer Sim. P. Co.

Valley Pump Co.

Valley Pump Co.

Dean Bros. Stm. P. Wks

Blakeslee Mfg. Co.

Laidlaw & Dunn Co. Irvin Van Wie. The A.S. Cameron Stm. Pump Works. Jno. H. McGowen & Co. Buffalo Stm. Pump Co. Boggs & Clarke.

Punching and Shearing Mchry. G. D. Colton & Co. Long & Allstatter Co.

Long & Allstatter Co.

Railroads.

N. N. & Miss. Val. R.R.
C. L. & W. R. R.
C. H. & D. R. R.
Queen & Crescent Route
Valley Railway.
W. & L. E. Ry'
C. & C. R. R.
Illinois Cent. Railroad.
Erie Railway.
Piedmont Air Line
Western Md. R. R.

Railroad Equipm't and Supplies, (New & Sec'd Hand) CNew & Seo'd Hand)
Ross-Mechan Brake
Shoe Foundry Co.
Weir Frog Co.
Weir Frog Co.
Wm. A. Cather & Bro.
Corey Car & Mig. Co.
Robinson & Orr.
Humphreys & Sayce.
Carlisle Mig. Co.
Richmond Loc. & Mch.
Wks.
H. K. Porter & Co.
Penna. Steel Co.
Baldwin Locomo. Wks.
Wm. Minnigerode.
F. A. Estep.
A. S. Males & Co.
Real Extrato.

Road Machinery. Vulcan Road Mach. Co. F. C. Austin Mfg. Co. Roll'g Mill Mehry, Lloyd Booth Co.

Roofing. W. H. Fay Manilla Co. Niles Iron & Steel Root-Niles Iron & Steel Rooting Co.
Globe Iron Roofing &
Corrugating Co.
Cort. Met. Roof. Co.
Merchant & Co.
H. W. Johns Mfg. Co.
J. H. Eller & Co.
Long Steel & Iron Roofing Co.

J. H. Eller & Co.
Long Steel & Iron Roofing Co.
H. F. Watson Co.
Sims Mfg. Co.
N. T. Pate & Co.
Clacin. Corrugating Co.
Ehret-Warren Mfg. Co.
Empire Paint & Rfg. Co.
Canton Steel Roof g Co.
Sykes Iron Roofing Co.
Kanneberg Roofing Co.
Kanneberg Roofing Co.
Cambridge Roofing Co.
Cambridge Roofing Co.
The Berger Mfg. Co. Rubber Goods. Waterbury Rubber Ce

Saws.
(See also Woodworking Machinery,
E. C. Atkins & Co.
Hy. Disston & Sons, Inc,
W. F. & John Barnes Co
Peter Gerlach & Co.

Saw Mill Machin'y Saw Mill Machin'y
A. F. Bartlett & Co.
H. Dudley Coleman Machinery Co., Limited.
Greer Machinery Co.
Jacob J. Molts,
Jerome Molts,
W. D. Dunning,
U. S. Machine Co.
De Loach Mill Mfg. Co.
W. E. Hill & Co.
Frick Co.
Taylor Mfg. Co.
Scales. Scales.
Buffalo Scale Co.
Jones of Binghan

Screws. Taps, &c. Cincin. Screw & Tap Co Scroll Saws.

H. L. Beach. W. F. & John Barnes Co Sheet Metal Work-ing Machinery. Niagara Stamping and Tool Co. Shingle and Stave Machinery.

(See Woodworking Ma-chinery.)
W. E. Hill & Co. Skylights. E. Van No Soap-makers' and Butchers' Mchry.

H. Wm. Dopp & Son. A. W. Houchin. A. W. Houchin.

Spark Arrestors.
Jessup Bros.

Speed Regulators.
F. M. Foot Reg. Co.

CARD CLOTHING. JAMES

H & GO. Woolen Machinery.

PHILADELPHIA.

MORSE ELEVATOR WORKS

MORSE, WILLIAMS & CO. SHEER & MCREE

INGERSOLL-SERGEANT DRILL CO., 10 Park Place, New York.

facturers and Builders of HYDRAULIC STEAM, ELEVATORS With most approved Safety Devices.

Mith most approved Safety Devices.

Dumb-Waiters, Automatic Hatch-Doors, &c.

Office, 1105 Frankfort Ave.; Works, Frankfort Ave., Wildey and Shackanakon Street, PHILADELPHIA, PA.

e photo-engraved display sheets entitled "RECENT IMPROVEMENTS IN AIR COMPRESSORS,"
"RECENT IMPROVEMENTS IN ROCK DRILLS,"
y one who will cut out this advertisement and mail it to us mailed free to any one who will cut out this advertis

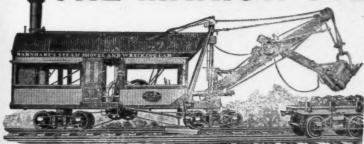
The cherinkle

WROUGHT-IRON OPEN HEXAGONAL.

MADE FROM THE BEST CHARCOAL IRON.



Western Agents H. L. GREEN & CO., 46 Lake St., Chicago. Eastern Agents:
ANTHONY & McELROY, 328 Chestnut St., Philadelphia. The Only Buckle Made that has The Central Iron & Steel Co. a Perfect Wrench Hold. BRAZIL, IND.



Marion Steam Shovel Co. 601 WEST CENTRE ST.



IMPROVED BALL ENGINE SIMPLE, COMPOUND AND TRIPLE, HORIZONTAL AND VERTICAL,

THE BALL & WOOD COMPANY.

Office, 15 Cortlandt Street, NEW YORK,

Is superior in DESIGN. FINISH and WORKMANSHIP. In REGULATION and ECONOMY it has no equal. Built with new tools, from new patterns and after long experience, it should and DOES mark the latest step in steam engi-REPRESENTATIVES:

INCINATI W. B. PEAR ON & CO., Home In . Bidg., CHICAGO,

V & VATER. MINNERPOLIS W. A. DAY, 30 O iver Street, ROSTON

This is an entirely new departure in the Fertilizer Trade. Our products furnish a permanent as well as a speedy enricher of the soil, and are entirely free from any deleterious acid. Every pound is of value for fertilizing the soil. Its physical condition is such that not the slightest difficulty is found in obtaining even distribution on the soil by drill or otherwise. Its cheapness, which, in addition to its intrinsic value, must commend it. This process is patented, and we are the sole owners of said patent for the United States.

STATE RIGHTS FOR THE MANUFACTURE UNDER OUR PATENT CAN BE NEGOTIATED FOR.

NO EXPENSIVE PLANT REQUIRED. -

SEND FOR CIRCULAR.

210 E. LEXINGTON STREET, BALTIMORE, MD.

SECOND HAND RAILS.—200 TONS OF 20 LB. and 50 TONS OF 16 LB. Selected Second-hand Steel Rails, good as new. Ready for delivery now. Can deliver at St. Louis, Kansas City, Chicago or Omaha. Also 150 tons of selected second hand 30 lb. Iron Rails at Hersey, Wisconsin. We are always in the market for second-hand rails in any quantity.

ROBINSON & ORR, Pittsburgh, Pa.

### COMPANY. THE DEANE STEAM

HOLYOKE, MASS.

STEAM \* PUMPING \* MACHINERY

Send for New Catalogue.



NEW YORK, CHICAGO.

Water

PHILADELPHIA.

Works ENGINES

Birmingham Office and Warerooms: No. 6 SOUTH 20th STREET.

### WORTHINGT CEAM PUMPS

WATER METERS

HENRY R. WORTHINGTON, INDEPENDENT CONDENSERS NEW YORK.

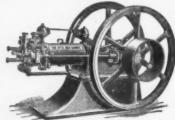
Philadelphia Besten

Chicage

St. Louis

St. Paul

20 to 70 per ct. less Gas



# Over 33,000 in use. **(**

ANY OTHER ENGINE.

immediately. When Stopped all Expense Ceases.
NATURAL GAS, PRODUCER GAS

Working Without Boiler, Steam, Coal, Ashes or Attendance. Started Instantly by a Match it gives full power immediately.

FOR COAL GAS, GASOLINE, nended by insura No explosions, no fires nor cinders, no gauges, no p SURPASSED IN EVERY RESPECT for hoisting in w nning. Recom

Branch Office, 151 Mon-OTTO GAS ENGINE WORKS, Schleicher, Schumm & Co. Sizes, 1/2 to 100 Horse-Power. roe St., Chicago, III.

WE SELL Twisters,

Warpers, Spoolers, Reels, Temples,

Burnished Spinning Rings,

Etc., Etc.



Especially Adapted for Southern Cotton Mills.

GEO. DRAPER & SONS, Hopedale, Mass.

FLOUR, CORN, PORTABLE AND ROLLER



COMPLETE.

ALL SIZES.

We guarantee Highest Product in our Custom or Merchant Mills, which we will contract to build complete—over 1,000 have been equipped by us. Our Portable Mills have been awarded Highest Prizes at Exposition Fairs. French Buhr Grist Mills, over 3,000 in use, complete with sheller, \$115. Correspondence solicited. Write for pamphlet. "Mills and Milling" sent free.

NORDYKE & MARMON CO., Indianapolis, Ind.





For SUCTION, WATER, STRAM, GAS, AIR, AGIDS and for every purpose to which a Hose can be applied.

RESISTANCE to Great Pressure; Unobstructed Flow of Water; inreased Flexibility and Perfect Protection are some of its Advantages.

ading or use of any SERVICEABLE ARMORED WIRE-BOUND sanufacture is an infringement on one or more of our patents, and any violation t prosecution Brass plates mark each coil and admonish infringers, whether

WATERBURY RUBBER COMPANY,

WE SUARANTEE every look sold to withstand constant service for such longer period as to render citial cost much less in the end. Every wind of the wire can be cut without loosening of uncolling. 49 WARREN STREET

NEW YORK.

OYERS' LIABILITY ASSURANCE. CORPORATION, Limited,



OF LONDON, ENGLAND.

Trustees for the United States:
OLIVER W. PEABODY, Esq.,
KIDDER, PEABODY & Co., Boston.
CHAUNCEY M. DEPEW, Esq.,
Pres. N. V. Cen, and H. R. R. R. Co., New York.
SAMUEL SLOAN, Esq.,
Pres. Del., Lacka, and West. R. R. Co., New York.
WM. A. PRENCH, Esq., Pres. Mass. National Bank
ABRAM FERENCH CO., Boston.
HON JOHN LOWELL Boston

Deposited in United States,

Policies issued giving full protection to Employers against loss by Claims from Employees on account of Accident. Rates Proportioned to Risks of Occupation. One Premium the only Payment during year. No Contingent or other Liability on part of Employer.

Employers with Pay Rolls of \$103,000,000 already covered in United States. No Employer should be without this Protection. Cases Investigated by Competent Inspectors and considered by Eminent Counsel. If liability shown, Claims settled without litigation.

ENDICOTT & MACOMBER, Managers for the United States, 71 KILBY STREET, BOSTON.

PLETON 28 Central St., Boston: EDMUND : W GHT. Ju., 51 Codar St., N. Y.: Middle Department, TATINALL PAU DING, Resident Adviser: JOHN G. HOOVEN, Mgr.: scent, 416 and 420 Walnut St., Phila ciphia: Maryland Department, Lawrond & McKim, General Agents for Maryland and the District of Clumbia 228, Holliday St., 228-228 LeSalle St., Chi-apo: P. D. Hussubeng & Boo. 1 0 N. Third St., St. Louis: B. M. Allison, State Agent for Ala: amm and Tenness e, Brimingham, Ala.

For SOAP MAKERS and BUTCHERS' MACHINERY, ADDRESS H. Wm. Dopp & Son, Buffalo, N Y.







Vol. XX. No. 8. WEEKLY.

BALTIMORE, SEPTEMBER 26, 1891.

\$4.00 A YEAR. SINGLE COPIES, 10 CENTS.

# Manufacturers' Record

PUBLISHED EVERY SATURDAY BY THE

MANUFACTURERS' RECORD CO.

President, Secretary and Treasure

RICHARD H. EDMONDS, EDITOR.

WM. H. EDMONDS, Business Manager.

GOR. EXCHANGE PLACE AND COMMERCE STREET
BALTIMORE.

SUBSCRIPTION, - - - \$4.00 a Year.
Te Fereign Countries, - - \$6.50 a Year.

BALTIMORE, SEPTEMBER 26, 1891.

[Courier-Informant, Bartow, Fla.]

Nor an industrial movement in any Southern State, whatever its magnitude or wever insignificant, escapes the notice of that greatest of all the world's indus trial and financial journals, the MANUFAC TURERS' RECORD, of Baltimore. It is a complete history of each week's progress ighout the Southland-a great mirror in which every new mining, manufacturing, railroad and financial enterprise is reflected. In the last issue of that great paper we are pleased to see that our own little sunny land leads all the Southern States in th number of new enterprises. The South is prosperous throughout its length and eadth, but it is with pardonable pride that we call attention to the fact that, in the last week's record of lately organized mining and manufacturing companies and other progressive movements as given in the journal referred to, Florida has the largest list. The "Old Dominion," however, comes in as a close second, and our sister State, Georgia, ranks third, while nearly every Southern State makes a good wing.

THE North Carolina board of managers for the World's Columbian Exposition will meet at Raleigh, October 20, to devise ways and means for securing a State exhibit. It has no funds in hand, because it was ascertained too late that the special appropriation made by the legislature could not be legally used. The MAN-UFACTURERS' RECORD believes that this will not prevent that State from making an exhibit in all respects worthy of her boundless resources and of the enterprise and liberality of her citizens. Some wise plan for raising a popular subscription will be adopted, and the response will be speedy, generous and general.

### The South Must Raise Foodstuffs.

In an editorial published last win ter upon the importance of the South raising a large corn crop this year, MANUFACTURERS' RECORD stated that the grain crops of 1890 were so small that even if the yield of 1891 should be up to the highest mark, there would be a full demand for all the corn produced to counterbalance the deficiency in last year's crop. This was based simply upon the normal consumptive requirements of this country and Europe, and no account was taken of any unusual demand from Europe. The failure of European crops assures a demand at good prices for every bushel of wheat and corn that we can spare, and we will enter the crop year of 1892 with very low stocks of grain. Even should 1892 duplicate the enormous yield of cereals in 1891 and Europe have fair crops, prices must inevitably be well maintained, for in July, 1892, our stocks of wheat and corn will be very nearly, if not quite, as low as in July, 1891. Moreover, the opening of the German and other markets to American pork will materially help to increase the price of bacon and corn.

For unately the farmers of the South have this year raised from 75,000,000 to 100,000,000 bushels of grain more than in 1890, and the South is made richer by at least \$75,000,000 by it. But next year must show a still greater increase in wheat, corn and oats in the South, and also in the raising of provisions. It may be accepted without question that grain and provisions will continue high for at least two years, even if 1892 gives us the largest crops ever produced, and if the crops of that year should be small the Southern farmer who has to buy his foodstuffs will have a bad time of it.

The MANUFACTURERS' RECORD believes that every paper in the South and every branch of the Farmers' Alliance should press this matter upon the attention of Southern farmers. It cannot be done too

often nor too vigorously. We are in an era of high prices for breadstuffs, and in all probability there will be no change for at least two years. The prosperity of Southern farmers depends upon raising an abundant supply of wheat, oats, corn, provisions, and other foodstuffs, whether cotton advances in price or not. Will the press of the South take up the matter at once and urge it without ceasing upon the farmers?

In an excellent spirit worthy of general imitation the Board of Trade of Brunswick, Ga., has pledged its cordial co-operation with Savannah in the latter's efforts to obtain from Congress a lump appropriation large enough to complete the river improvement that shall give the latter city a depth of 26 feet of water from her wharves to the sea. One of the paragraphs of the preamble adopted expresses the conviction that ought to rule the public thought and action of all American cities. It declares: 'We believe a spirit of friendliness ought to exist between the ports of Brunswick and Savannah, and that they ought to assist one another in so far as they can without injury to themselves, in the march of progress and development." In a friendly rivalry between cities there will always be a gain for each, but when that changes into a quarrel neither one will be the gainer.

SOUTHERN iron is steadily pushing its way into the most remote sections of the country. A few weeks ago the MANUFACTURERS' RECORD announced the sale of 800 tons of Alabama iron, to be shipped by rai! to Baltimore and thence by sailing ship to San Francisco; now comes the sale of 3,000 tons of water-pipe to Spokane Falls, Washington, by the Radford Pipe Works, of Anniston, Ala. It will not be many years before the South is exporting its iron as well as its coal.

"I CAN'T well do without the MAN-UFACTURERS' RECORD" is what Mr. J. A. N.ghbert, of Logan C. H, says in renewing his subscription.

## The United States Capturing Canada's West India Trade.

A discussion in the Canadian Parliament at Ottawa last Friday shed a side light on the effect of the present tariff act upon Canada's commerce with the West Indies. One member, Mr. Wark, drew attention to the advisability of the government taking steps to encourage trade between Canada and the British West Indies. He supported his position by a long and interesting speech upon the trade question, urging the abolition of discriminatory olauses in European treaties.

Mr. Abbott replied that the government had done all that was possible to promote and revive the trade with the West Indies. The finance minister had not only made a personal trip to the islands, but the government had endeavored to encourage commerce by successful exhibits at Jamaica and by subsidies to three lines of steamships. Unfortunately Canada was not in the same position with the United States, which had the power, by the Mc-Kinley act, to reciprocate with the West Indies. The difficulty that Canada had was that she imported hardly anything from the West Indies upon which she could relax the duty. Since Canada had reduced the sugar duties, she did not trade with the West Indies in any article which paid a heavy duty. The attention of the government was earnestly directed to this trade, and no opportunity would be lost to further and improve it.

A trade that Canada regards as of such importance that she sends her finance minister to look into it, paying subsidies to there lines of steamships, and makes a large and costly display at the Jamaica Exposition, is open to the United States on terms that neither Canada nor the commercial nations of Europe can obtain. The policy of combining protection to home industries with a fair trade with all countries that will accept reciprocity is opening up to this country commercial opportunities of magnificent proportions. To

improve them to the fullost extent a merchant marine is needed, and to acquire and maintain that we must do as England, the maritime countries of Europe, and even Canada is doing, and give liberal subsidies to encourage enterprise.

## The Production of Phosphate Rock.

Some one has said that if an investigation could be made as to the source of the wealth of every rich man in Charleston, it would be found that in every case phosphates were the foundation of it. This is, of course, too sweeping, but it is undoubtedly true that the development of the phosphate interests of that State has created enormous wealth and largely helped to make Charleston one of the richest cities in proportion to population in the country. Florida is now fast following in South Carolina's lead in the mining of phosphate rock, and that State promises, if the present rate of growth continues, to take from the latter its position as the greatest phosphate producer of the world. And Florida, like South Carolina, will see great wealth created out of this industry. The world's consumption of phesphate rock is steadily increasing, and the present annual output of 1,600,000 tons must be largely added to every year to meet the demand. Messrs. Joseph Campbell & Co., of New York, put the world's production of phosphate rock at present as follows:

																			Tons.
South Ca																			600,000
Florida.																			
France													,		0		,		400,000
Belgium					0	0	0	0	9		0	0	0		0	0	0	0	200,000
Canada.																			30,000
England					0.1							0		0	0	0		0	20,000
Germany																			40,000
Norway				۰		٥		۰	9		۰				۰	٠	۰	۰	20,000
West Inc	lies.								0			0		0			0		50,000
Other co	unti	ie	· g					_		_			_				_		100,000

The cheapness with which Florida rock can be mined will doubtless enable that State to cause the closing of nearly all other mines except those of South Carolina, should the production ever outgrow the demand. There will, of course, be many setbacks and many failures of badlymanaged companies and of some that start out with but little capital, as is always the case in the early history of any new industry, but in the end the Florida phosphate will stand on a solid basis and yield large profits.

THE increase in net earnings of Southern railroads in July, as compared with July, 1889, according to Bradstreet's, was 24 per cent. Among the roads showing net gains over \$30,000 in July were:

Central of Georgia	
Cincinnati, New Orleans & Texas Pacific.	
Louisville & Nashville	
Nashville, Chattanooga & St. Louis	
Richmond & Danville	
South Carolina	44,000

It is reported in New York that a London syndicate, through Drexel, Morgan & Co., has bought the balance of Mr. C. P. Huntington's holdings of Chesapeake & Ohio common stock, amounting to about 25,000 shares.

Georgia and the World's Fair.

Committees appointed by the Georgia State Alliance and the State Agricultural Society met at Atlanta last week to arrange for Georgia's participation in the World's Columbian Exposition. The following resolutions were adopted after a protracted discussion of the Sabbath observance question:

Resolved, That we recommend an exhibit to be made at the World's Fair at Chicago.

- 2. That the daily and weekly papers of this State be appointed as agents to collect funds for that purpose.
- 3. That we ask the State Agricultural Society and the State Alliance of Georgia to contribute \$1.000 each to this fund.
- 4. That we ask the railroads to transport the exhibits free.
- 5. That a committee of two be appointed in each county, one by the president of the State Agricultural Society and the other by the State Alliance, to secure county and individual displays and collect funds in connection with the newspapers.
- That a central committee of five be appointed as an executive and financial board, which shall be charged with the details and the disbursement of the funds.
- 7. That the exhibit shall not be for display at Chicago on the Sabbath day, and we demand that the World's Fair Exhibition be closed upon that day.

An executive committee was appointed with Major W. L. Glessner at its head, which will at once enter upon the active work of canvassing the State for exhibits and for funds.

THE Southeastern Traffic Association has shut off all sales of tickets by the roads that compose it to points on the Georgia Southern Railroad, and will endeavor to transfer as much of the passenger traffic as possible to other Florida lines. The general passenger agents who constitute the Southern Traffic Association are men of large experience, and presumably considered the business on all sides before they decided upon this action. Whatever may have been the necessity for this decisive measure in the judgment of the association, it will strike many men that it was adopted at an unpropitious time, for a spirit of antagonism to railroads is altogether too prevalent, and everything that can be construed into an attack upon the public will be seized upon eagerly and employed as a weapon of offense. While this popular antagonism to railroads continues, it becomes their managers to "be as wise as serpents and as harmless as doves."

THE Enterprise Railroad Co, of Tennessee, has closed a contract with Dr. Seward Webb, of New York, for doing 80 miles of heavy work among the mountains of Northern New York, on the Adirondack & Montreal Railroad. The Enterprise Co. consists of the members of the great contracting firm of McDonald, Shea & Co. and of a number of Memphis capitalists. This contract amounts to more than \$2,000,000. The company is preparing to transport all its plant and outfit to Pottsdam, N. Y. The freight charges will be about receipts are and with of the crop will fast as the standard the

\$25,000. From 400 to 500 negroes will be sent from the company's Southern works, they being preferred to unskilled foreign laborers. Thus Southern enterprise scores another triumph in competition with other sections.

THE Southern States engaged in the Raleigh enterprise design that it shall be a permanent exposition, illustrative of the resources of the South, to which 12 or 15 States send exhibits-permanent at least until January, 1892, when it will be removed to Washington city or Richmond, or remain, as circumstances may govern, until 1893, when it will be taken to Chicago and made a part of the Columbian display. It is suggested that Maryland ought to capture the exhibition for 1892 and set it up in Baltimore, and supply attractions which would draw this way a large and steady stream of people from all sections of the country.-Baltimore Sun.

New York newspapers assure us that there will be more Northern people in the South this year than ever before. They will come to Raleigh in large delegations, and they are the shrewdest observers in the world. These Yankees will dissect everything at the exposition. They will look through every millstone that has no hole in it, and they will carry away impressions that will affect in some measure the future of this section.—Charlotte (N. C.) Chronicle.

In regard to the first item the MANUFACTURERS' RECORD would suggest that if the so-called exhibit at Raleigh is to form a part of the South's display at Chicago, we can only hope that it will be in some out-of-the-way corner, carefully hid from public view, because it is impossible that the exhibit gathered as this has been should even approximately represent the South's resources. And if the second item is true, and large delegations of the "shrewdest observers in the world" are to be in Raleigh to investigate the South as illustrated at this exposition, the "impressions which they will carry away" will be mighty unfortunate ones for this section, because the South's resources in soil. minerals and timber are a thousandfold greater than would be supposed by those who learn of them only through this exposition. The MAN-UFACTURERS' RECORD regrets the necessity of protesting against this county fair display being regarded as a Southern exposition.

THE fine weather of the last week or ten days has caused cotton to mature very rapidly and hastened its picking. The result is that the receipts are very heavy at the ports, and with continued good weather the crop will be marketed about as fast as the railroads can handle it. It is hardly probable that we shall have another picking season such as last year, and upon this will largely depend the total yield.

INFORMATION has reached the Knoxville Journal that the prospects of a speedy settlement of the financial troubles of the Three Cs Railroad are more favorable than at any former day.

### A Southern Bleachery.

A bleaching mill will probably be built near Huntsville, Ala., where ten acres of land have been donated for the plant, and 500,000 gallons of pure freestone water will be furnished daily for ten years without cost to the mill. The enterprise will be exempt from taxation for the same period. The movers in this enterprise are Mr. William B. Nausen, formerly of Lewiston, Me., but now with the Swift Manufacturing Co., of Columbus, Ga.; Mr. S. M. Williams, of Columbus, and Mr. John B. Dallas, of Nashville, Tenn., each of whom subscribed for 50 shares in the company. There is no bleachery in the South, and all bleached goods made in her cotton mills are shipped to Northern establishments to be finished. Georgia mills alone are reported to pay \$150,000 annually for such work.

This bleachery will be a three-story building, and supplied with the most modern appliances and machinery of a capacity to handle 5,000 pounds of goods at a time. The capital stock will be \$50,000, with authority to double it if desired.

PRESIDENT HARRISON, in his speech made yesterday to the committee from Augusta, Ga., which waited upon him to invite him to attend the opening of their exposition, made some very complacent observations about the South. However, we shall not cali his sincerity into question, since he was the means of giving a very widespread advertisement to a worthy enterprise. We only wish that Richmond could secure for her fair the abundance of excellent and free advertising that Augusta is getting for her exposition.—Richmond Dispatch.

The Dispatch is greatly mistaken. Augusta and its fair are being widely advertised all over the country, but it is not "free advertising." Augusta people have been enterprising enough to advertise their town in many ways and to pay their money for it, and one of them was in sending a delegation of leading business men, at a great expense of time and money, through New England to awaken an interest in their fair as well as in their town. Augusta believes in advertising, but it does not seek to get it free, and the widespread advertising which it is receiving costs money, but the investment will return profits for years to come.

A MR. LAZARUS, of Texas, in an interview in the Chicago Herald, says that the people of Galveston are too wealthy. He reports that—they have got so much money that they have become lazy. They have no ambition, and that is the reason Galveston will be a little slow in getting to the front. There are more millionaires in Galveston than in any other city of its size in the world, and such a state of affairs is to be regretted, for it injures the city. The thing needed there is a little of Chicago's enterprise.

It is very appropriate for Mr. Lazarus to be rather severe on rich men.

### THE SOUTH'S INDUSTRIAL GROWTH.

be

for

ed

to

X-

ne

er-

en,

OW

ns,

as, ıb-

ıy.

th. ıer

or-

ay

ost

ry

ds ck

to

ech

to

ent rer.

g a

thy

ond

sta

en.

ely

out

he

er-

eir

eir

as

ng

geir uit

is inurs

ld. on

ey bi-

ill

nt.

The most trying period which the industrial growth of the South has ever encountered, and doubtless the most trying that it will ever have to face, has been that covered by the last nine or ten months. It would have been natural for a rapidlydeveloping section like the South, where thousands of new enterprises were being organized or were under construction, to have felt the effect of financial troubles far more seriously than any other section, but such has not been the case. Of course many enterprises just getting under way when the panic came have been halted, and some have been abandoned, but this has been mainly in the line of development and town companies. The manufacturing enterprises in operation have gone along steadily. Banking and general business operations, though somewhat restricted in the volume, have stood the financial strain remarkably well. Despite the extreme depression in iron, Southern furnaces have generally been running to their full capacity and making some profit; cotton mills have been busy, and in nearly every line of manufacturing there has been a steady, substantial gain even during the great monetary stringency. The way in which the South has stood the strain has surprised the financial world, and has materially strengthened the confidence of the capitalists of the North in the great future of this section.

The panic is passing away; the whole country is entering upon a period of unprecedented prosperity, and in all human probability the next two years will be the most active in industrial advancement in the history of our country. In this great activity and prosperity the South will undoubtedly share. Its vast resources will command the attention of capital, new furnaces and steel works will be built, new cotton mills established, new mines opened, many miles of railroad built, and in every branch of its trade and industry new activity will be felt. The South has passed through the trying ordeal of the last twelve months, and it is now ready to take its place in the great march of progress upon which the whole country is entering.

During the last nine months the South has continued to establish new manufacturing enterprises. In that time 2,472 new concerns have been organized, which is only 700 less than in the great "boom" period covering the first nine months of 1891. The list of new enterprises for the first nine months of the year was as follows:

Iron furnaces	6	
Machine shops and foundries	72	
Agricultural implement factories	12	
Flour mills	40	
Cotton mills	48	
Furniture factories	58 38	
Gas works	20	
Water works		
Carriage and wagon factories	77 26	
Electric-light plants	124	
Mining and quarrying enterprises	413	
Woodworking factories, including saw and planing	4-9	
mills, sash and door factories, stave factories, &c	376	
Ice factories	58	
Canning factories	58 48	
Stove foundries	6	
Brick works	129	
Miscellaneous iron and steel works, rolling mills,		
pipe works, &c	40	
Cotton compresses	18	
Cottonseed-oil mills	26	
Miscellaneous enterprises not included in foregoing.		
miscenaneous enterprises not included in foregoing.	883	
T-1-1		

In the following list we give the name, location and character of business of the new enterprises projected during the last three months, and existing establishments rebuilt (after being burned) or enlarged :

	ALABAMA.	
NAME.	LOCATION.	BUSINESS.
Attalla	W. G. Lunsford, of Birm	Foundry & Mach. Shop
Anniston }	orning Land, Indus-	Manufactures, etc.
Auniston J	R. J. Sayw.ll	Foundry & Mach, Shops Firon Foundry.
Auniston	Woodstock Iron Co	iron Foundry.
Arbacoochee }	Works	Gold Mine.
BenrmanS	cotch Lumber Co	Planing Mills.
Birmingham B	Bessemer Fire Brick Co Birmingham Novelty Wks.	Brick Works.
bumingham S	tler Rook & Staty Co	Pahlishing &c
	outhern Soap Co	

LOCATION.	NAME.	BUSINESS.
Bridgeport Henr Bridgeport Rive		.Corn Mill.
Bridgeport River	raide Brick Co	.†Brick Works.
Carbon Hill Holli	nger & Burford	. tCoal Mines.
Carbon Hill Mort	is Goss Mining Co.	.†Coal Mines.
Carbon HillJ. A. Cedar Cross'g Stand	Reid	Coal Mine,
Cedar Cross'g Stand	lard Brick Works	. †Brick Works.
Childershurg Ellio	tasaw Coal Co	·Coal Mine. ·Plang. Mill & tSaw Mill.
Clinton	Powell	Grist Mill & Gin.
Clinton John Clinton Willi	am Green	Grist Mill & Gin.
Decatur Deca	ur Stave Works	. Heading & Stave Fac.
Ensley City South	ern Steel Co	.*Steel Plant.
Florence Flore	nce Mineral Paint	Paint Factory.
Riorance W P	Campbell	Heading & Stave Fac.  *Steel Plant.  Paint Factory.  *Electric light Plant.  Pan Factory.
Florence W. S.	Canaday	Pan Factory.
Fort Payne Fort	Payne Basket &	t Back at Pastone
Port Payne. Pac	kage Co	IBasket Pactory.
Fort Payne Excel	. Window Shade Co	Window-shade Factory. Mining.
Gate City Jeffer	son Mining Co	Mining.
Gate CityAlaba	ma Kolling Mill Co.	.†Buggy & Wagon Facty.
GurleyA. Wa	lton & Sons	Rarrel Enctory.
Wanted   North	Alabama Standard	Cas & Oil Walls
Hartse'le .   Oil	& Gas Co	Gas & On Wells.
Hartselle South	ern Oil Co	Oil Wells.
Huntsville Hunts	wille Planing &	tSaw & Planing Mill.
Isamor III &	C D Long & others	Woodworking Factors
1 DeRa	rdelehen Coal &	frencii Factory. Gas & Oil Wells. Oil Wells. †Saw & Planing Mill. Woodworking Factory. Coke Ovens. Barrel Factory. †Cotton Ginnery. Publishing.
Johns Iron	Co	Coke Ovens.
Luverne C. R.	Bricken	Barrel Factory.
Marion E D.	Shivers & Co	Cotton Ginnery.
Midland City H. G. Montgomery Montg	Townsend	Pulasan Blant
Mt. HebronAlber	Sanders	Grist Mill & Gin
Mt. Hebron N. D.	Cameron	Grist Mill & Gin.
New Decatur. Mario	n Graber	.Saw Mill.
New Decetur, Alaha	ma Eurniture Co	Furniture Factory
Opelika J. T. l Opelika Opelil	uckett & Sons	Machine Shops.
OpelikaOpelil	ra Milling Co	Increase Capital.
OxannaA. W. Pell City Hercu	les Foundry Co	tiron Foundry
Piedr	ont Rim. Bending	estri - 1 Produce
Piedmont Piedm & S SelmaSelma	poke Mig. Co	*Wneel Pactory.
SelmaSelma	Water Works Co	†Water Works.
Sheffield Sheffie	eld Brewing Co	Brewery.
Shemeid 1. L.	POSSICK CO	†Stone Quarries. Saw & Planing Mills.
Marketone I Com	- 11d C- 1	Furniture Fac . Foundry
TuskaloosaJ. Sno	w Hardware Co	and Machine Shop.
UnionT. W.	Cobb	Furniture Fac , Foundry and Machine Shop. Grist Mill & Gin. Saw Mill.
Upton W. W	Currey	Saw Mill.
UptonGilane WallaceSulliv		
West Greene Mayer	& Strait	Grist Mill & Gin.
True Greene . Mayor		
	ARKANSAS.	
Arkansas City. Desha		
Batesville R. W.	Earnhart	†Distillery.

ARKANSAS.
Arkansas City. Desha Lum. & Plant. Co Add. Dry-kilns.
BatesvilleR. W. Earnhart Distillery.
Bryant Philadelphia (Pa.) Parties Aluminum Works.
Dodd City A. L. Dirst and others Onyx Mine.
Dodd City H. S. Dodd
Fayerteville J. A. Montgomery † Broom Factory.
Fort Smith Henry Rentzel Brick Works
Ft. Smith Oil & Cotton I Cotton-seed Oil Mill.
Fort Smith Ft. Smith Oil & Cotton   †Cotton-seed Oil Mill. Compress Co
Fort Smith Ft. Smith Paving Brick & Brick Works.
Fort Smith \ & Fire Clay Co TBrick Works.
Grace Big Creek Lumber Co Lumber Mill.
Helena Planters' Oil Mill Cotton-seed Oil Mill.
Huntington Huntgtn. Cotton Mills Co. Cotton Mill.
Little Rock tCarriage & Wagon Fac.
Little Rock George Beyerlein Carriage & Wagon Fac.
Little RockWm. Farrell Lumber Co+Lumber Mill.
Little Rock L. R. Mill & Elevator Co. + Flour Mill.
Malvern Leonard Bratt Saw & Planing Mill.
Morrillton Cotton Compress,
Paragould   Paragould Oil, Gas & Oil Wells.
Vater Co Ons & On Wells.
Pine BluffKing Manufacturing Co
Russellville Russell Coal & Mining Co. Coal Mines.
SearcySearcy Electric Light Wks. Enlarge Plant.
Stuttgart Blg Creek Lumber Co Saw Mill.
Texarkana Bryant BrosFurniture Factory.

Stuttgart Big Creek Lumber Co Saw Mill. Texarkana Bryant Bros Furniture Factory. Warren Saline Iron Works †Iron Works.
Texarkana Bryant Bros Furniture Factory.
Warren Saline Iron Works Tiron Works.
FLORIDA.
Acworth Acworth Land Co Gold Mine.
Alachua Lefoys & Pearce Cotton Ginnery.
Alachua Co Go of Tallabassee Phosphate Mines.
AmericusPine City Lumber Co†Lumber Mill.
C. W. Lindner, of Clay   Phoenhote Mine
Alachua
Anthon Deacon Phosphate Co Phosphate Mines.
Bartow Bone Valley Phosphate Co. Phosphate Mines.
Partow Terraces Phosphate Co. Phosphate Mines & Whe
Tennessee-Florida Land I at the service of the
Bartow J. M. Searles
Bayard Presley & Hoffman Lumber Mill.
Bostwick Bostwick Lumber Co Lumber Mill.
Bostwick Lumber Co. Lumber Mil. Brooksville. A. T. Sheets. Crate & Handle Factory. Brooksville. Va. Fla. Phosphate Co. Lumber Mil. Chipola Chipola Lumber Co. Lumber Mil. Citra E. L. Waterman lirigating Plant.
Chicala Lymbas Co. Lymbas Mill
Circa F I Waterman Irrigating Plant
Citra Adams & Gordon Phos. Co. *Phos. Mines & Works.
Citra Adams & Gordon Phos. Co. *Phos. Mines & Works. Ellerslie Pasco County Phos. Co Phosphate Mines.
Fernandina J. G. McGiffin & Co Phosphate Crushing Plt.
Florida Jabez Galt, of Canton, Ga.   Phon hate Mines.
and others
Florida Florida Phos. Co., Limid. Phosphate Mills.
Fort Meade II S Phosphate Co Phosphate Mines & Wks
Fernandina Creosote Lum. & Cons. Co. Medicine & Paint Facty. Fernandina J. G. McGiffin & Co Phosphate Crushing Plt. Jabez Galt, of Canton, Ga.   Phos; hate Mines.   And others   Phos; hate Mines.   Florida   Florida Phos. Co., Limtd. Phosphate Mines.   Fort Meade U. S. Phosphate Co Phosphate Mines & Wks Fort Meade U. S. Phosphate Co Phosphate Mines & Wks Fort Meade U. S. Phosphate Co Phosphate Mill.   Gainesville G. H. Sutherland Phosphate Mill.   Gainesville G. H. Sutherland Phosphate Mill.   Gainesville Duttor Phosphate Co Phosphate Mill.   Gainesville Duttor Phosphate Co Phosphate Mill.   Control of the Control of th
Freeport Freeport Shingle Co Shingle Mill.
Gainesville G. H. Sutherland Phosphate Mill.
Gainesville Wacassassa Phos. Mfg.Co. Phosphate Mines.
High SpringsHigh Springs Phos. Co. Phosphate Mines. HomelandHomeland Pebble Phos.Co.:Phosphate Works.
Jacksonville Jacksonville Refrigera   tlc Factory.  Jacksonville Onley & Love
Jacksonville. tor Ice Works tice Factory.
JacksonvilleOnley & Love tWoodworking Factory.
JacksonvilleShaw & Sons Looking-glass Factory.
Key WestC.tyCrematory.
Lacoochee Lacoochee Phosphate Co. Phosphate Mines.
Lake Ogden J. W. DowlingSaw Mill. Lakeland J. J. NieuwenkampIrrigating Plant.
Lakeland J. Nieuwenkamp Irrigating Flant. Lakeland Lakeland Lumber Co Lumber Mill. Macclenny W. M. Coward Can & Canning Factory. Mac.lenny E. S. Shuey Cligar Factory. Macon Macon Photo Engrav. Co. Engraving Works. Marianna Chivola Lumber Co Saw Mill. Marianna Chivola Lumber Co Saw Mill.
Macclenny W. M. Coward Can & Canning Factory.
Mac.lenny E. S. Shuey Cigar Factory.
Macon Macon Photo Engrav. Co. Engraving Works.
Marianna Chipola Lumber Co Saw Mill.
Milion William Davidson Crist Mill
Macon Macon Photo Engrav. Co. Engraving Works.  Marianna. Chipola Lumber Co. Saw Mill.  Milton. J A Chaffin & Co. Planing Mill  Milton. William Davidson. 3Grist Mill.  Myers. Pebble Phosphate Co. Phosphate Mines.  Myers. Farquer & Tooke. Iron & Wood wk'g Fac.  Chall. Phosping Phosphate Co. Phosphate Mines.
MyeraFarquer & Tooke
OcalaCapitol Phosphate CoPhos. Min., Míg Fer.,&c. Orange City. Orange City Water Wks.  Water Works.  Water Works.
Orange City.   Orange City Water Wks.   Water Works.
& Irrigating Co
Orlando. San Schastian Sugar, Manufacture Sugar, &c. Orlando. Standard Pebble Phos. Co. Phos. Mines & Works,
Orlando Standard Pebble Phos. Co. Phos. Mines & Works.
PalatkaM, H. DaltonBox Factory.

LOCATION.	NAME.	Businkas.
Palatka Putr ParadisePara	nam County Lum. Co. I	umber Mill.
PensacolaStra		Sectric It. Plant & tice Factory.
Punta GordaEl C	orojal Cigar Mfg. CoC h JacksonvilleWat'r )	'ertilizer Fac'ory. 'igar Factory. Vater Works.
South Jack. Jack sonville Mi	oras Co	libre Factory.
SparrPlate St. AugustineSt A	Rock Phos. CoP agustine Imp. Co†! King	hosphate Mines, Building Material Fac.
TallahasseeLa P TampaJack TitusvilleTitus	Pierre Phos. & Mfg. Co.P son & Jones	hos. Mines & Works. Saw & Planing Mill. Iarine Railway.
WarnellWar WillistonAmb	Phosphate CoP nell Lum.& Vencer Co.† ler Lumber CoL . Castro	Veneer Works. umber Mill.
		-

GEORGIA.
AmericusM. B. Fulghum Broom & Whisk Factory
American American December Co Albertane
Athens C. I Shelverton & others . Ice Factory
Adjusta
Atlanta Carriage & Hard- / Carriage Cushion and
Atlanta   ware Co Ton Factory.
Atlanta Edison Electric Illum, Co. Electric-light Plant.
Atlanta West Side Land Co Water Works, &c.
Atlanta Georgia Electric Light Co. Electric-light Plant.
Atlania. West Side Land Co Water Works, &c. Atlania. Georgia Electric Light Co. Electric-light Plant. Atlanta. Central Ironing Pad Co Ironing-pad Factory. Atlanta. Atlanta. West End & Mc. Pherson Barracks Ry.Co.
Atlanta JAtlanta, West End & Mc- La Flactric Borney Diant
Pherson Barracks Ry.Co.
ATIANTS Ware of Crwens Lannery.
Augusta Southern Pine Fibre Co. Bagging, Cordage, Maiting, &c., Factory, Augusta Smith Warehouse Co Brec. Mills, &c.
Colab Months Co. Factory,
Augusta Smith warehouse Co Brec Mills, &c.
AugustaAugusta Factory†Cotton Mill, Ball Ground
A G Granger and I G I
Ball Ground. H. G. Granger and J. G. Mining.
Scarlett Ovater Canning !
Brunswick   Scarlett Oyster Canning   Oyster Cannery, &c.
Brunswick Oyster Cult, & Can'g Co Increase Capital.
Rowdon Downes & Iones Cotton Ginnery
Bowdon W. D. Lovorn + Flour Mill & Ginnery.
BowdonW. D. Lovorn
Cedartown { Carroll Iron, Land &   Mining & Mfg.
Timber Co
Cedartown   Northwest Georgia Iron   Mining & Mfg.
& Coal Co
Cedartown Hematite Iron & Ming. Co.Iron Mines, &c.
Cedartown Chas. Robers, of Chester, Pa. Cotton Mill.
Cedartown Augusta Mining Co Iron Mines.
Chickemanes Chica Coal & Iron Co. Coke Ove & Coal Minus
Chicksmangs Chick. Con & from CoCoke Ovs. & Cogn Milles
Columbus City Garbage Crematory
Cedartown - Augusta mining Co
Columbus tric Railway Co Electric Power Plant,
ColumbusA. EllisIce Factory.
ColumbusSarling Shoe CoShoe Factory.
Columbus Eagle Clothing Mfg. Co Clothing Factory.
Columbus Eagle Clothing Mfg. Co†Clothing Factory. CordeleCordele Electric Lt. Plant.Doub'e Capacity.
CordelePine City Lumber CoTLumber Mill.
Dahlonega W. L. Agnew Gold Mine.
Dalton Crown Cotton Mills Double Capacity.
Dalton W. C. Tilton Co Taic Mines.
Demorest
Datis Demail & Co. of N. C. Barrel & Wood win Pro-
Dalton. Crown Cotton Mills. Double Capacity.  Dalton. W. C. Tilton Co. Talc Mines.  Demorest   Demorest Home Mining   & Improvement Co.    Dublin. Powell & Co., of N. C. Barrel & Wood-w'g Fac Dublin. L. A. Chapman. Brick Works.  Dublin. Carter Bros. Brass & Iron Works.
Dublin Caster Bros
East Rome Rome Gas & Elec. Lt. Co Electric-lt. & Gas Wks.
Chatt. & N. Ga. Mica & Last
Fannin Co   Mining Co   Mica Mines,
Farmers & Merchants'   Cotton-seed Oil Mill &
Fannin Co Chatt. & N. Ga. Mica & Mining Co Mining Co Mining Co Cotton-seed Oil Mill & Gainesville D. Yeauwood Tobacco Factory, Gainesville Georgia Mfg. Co Electric-light Plant,
GainesvilleD. Yeanwood Tobacco Factory.
Gainesville Georgia Mfg. Co Electric-light Plant,
Gordon Mattress Co Excelsior Factory. Greeneville Y. F. Freeman
GreenevilleY. F. FreemanCotton Ginnery.
Griffin M. F. Morris Foundry & Mach. Shop
Griffin Middle Georgia Wine Co. Wine Distillery,

### KENTUCKY.

Ashland Ashland Paint Co †Paint Factory. Ashland Ash. Stone & Marble Wks. Marble & Stone Work
Brandenb'gh Kentucky Hesting & Gas Wells.
Cloverport Eclipse Gas & Mineral Co.Gas Well. Cloverport Home Supply Gas CoGas & Oil Wells.
Corbin Wilcox & Thompson Saw Mill.
CovingtonElmwood Distilling CoDistillery. CovingtonSouthwest CoPrinting Works, &c.

Location, Name.	BUSINESS.	LOCATION.	NAME.	BUSINESS.
Covington Lytle Safe & Lock Co	.Safe & Lock Works.	Dorsey	Southern Land Co	Manufactures, &c.
CovingtonKentucky Publishing Co. CovingtonColumbia Patent Co	Iron & Steel Works.	Dorsey		Iron Fence Factory.
Covington   Hartshorn, Phosphate & Mining Co	Phosphate Mines.	Dorsey	Losenh Schrieber of Ral	Tool Works.
FordFord Lumber Co	Planing Mill.	Frederick	Frederick City Cann'g C	o.†Canning Factory.
Ford. Ford Lumber Co.  Glasgow. Alfred Murray. Hardinsburg. Eclipse Mineral & Gas Co. Hopkinsville. Hopk. Tobacco Mfg. Co.	Gas Well.	Garrett Co.	Joseph Schrieher, of Bal Frederick City Cann'g C Gaithersb'g Mill. & Mig. C Silver Bell Mining Co. of Piedmont W. Va	Mining, &c.
			.United Silk Mfg. Co	
IrvineG, J, Boltz Kensee Main Jellico Mtn. Coal Co Lancaster A. G. Scott	Saw Mill. Electric-light Plant.	Hagerstown	. Herald Publishing Co	†Publishing.
LexingtonCrown Hill Splint Coal Co	o.Increase Output.	Laurel	.Windsor Knitting Mills. E. Ronenfield & Co., of	Shirt Factory.
Lex ngtonState University LouisvilleAutomatic Valve Co	. Valve Factory.	Luke	Baltimore West Va. Paper Co., of	Paper Mill.
Louisville Muldoon Monumtl. Wks. Louisville H. Wolke & Bro	.†Furniture Factory.	Mill Green	West Va. Paper Co., of Piedmont, W. Va A. J. Famous G. H. Parsons	Canning Factory.
Louisville Greenville Tobacco Co	.†Tobacco Factory. .Electric-light Plant.	I Parsonnurgn.	.G. H. Parsons J. W. Wimbrow Automatic Machine Co	Gas Well. Gas Wells.
Louisville Cooper River Land & Lumber Co Louisville Redford Stone Quar. Co Louisville Acme Vitrified Brick Co	Lumber Mill,	Washington,	Automatic Machine Co Carpenter Electric Light & Motor Co	Electric light Blant
Louisville Bedford Stone Quar. Co.	Stone Quarries. Brick Ter. cot. &c . Wks.	D. C Washington,		
Louisville Near Kichardson Druk Co	LITUE PACTORY.	D. C. Washingn D.	town R. R. Co	Power Plant. Printing & Publishing
Louisville Hall & Hayward Co Louisville Curry Signa Co	Increase Capital.	Washingo, DC	.Knight Safety Elevator Co	o. Elevator Works.
Louisville   Southern Caloric Light   & Fuel Co	Gas Machine Works.	West Point	W. Arlington Telegraph, Tel & Elec-It.& Pow.Co.	Electric-light & Powe
Louisville Thum Electric Safety Co. Louisville Wilson Sugar Cane Har-	Machine Wester	Woodberry	Druid Mills Co	.tCotton Mill.
LouisvilleJ. S. Clark Co	Marble, &c., Works.		MISSISSIPP	Γ.
		Bogue Chitto.	Norwood & Butterfield Co. Schlitz Brewing Co. of	o.tSaw Mill.
McHenry Williams Coal Co Middlesbor'gh Elec. File Renov. Co	File Renovating Works.	Charleston }	Schlitz Brewing Co., of Milwaukee, Wis	Stave & Heading Fac.
Middlesbor'gh Middlesbor'gh Henry Schroeder Middlesbor'gh A. H. Rennebaum	Cigar Factory.	I Enterprise	Estabuchie Lumber Co	.Cotton Mill.
Middlesbor'gh A. H. Rennebaum	Saw Mill.	Estabuchie	J. E. Land	Brick Works.
Middlesbor'gh Aut. Electric Scale Co	Scale Works.	Huntington .	J. M. Adams, of Ft. Worth, Texas	Saw & Shingle Mill.
Middlesbor'gh Aut. Electric Scale Co  Middlesb'gh   Middlesborough Sewer   Pipe & Artf. Stone Co	†Sewer-pipe Works.			
Newport Frigid Ice Co	Ice Factory.	Muldon	Queen City Mfg Co W. T. Evans & Co N. Y. Hardwood Lum. Co	tGin & Grist Mill.
Newport Wilbur H. Murray Mf. Co. Newport. Gover Lumber Co	Harness & Vehicle Fcty. Lumber Mill.	Natchez	N. Y. Hardwood Lum. Co Natchez Coffin Co	Sash, Door, Blind as
Newport Newport Ice Co	Salt Mines & Works. Ice Factory.	Pass Christian.	Pass Chris. Elec. Lt. Co	.Electric-light Plant.
OlympiaRose Run Iron Co Owensboro Owensboro Hot Water & Steam Heating Co	Mining & Mfg.	Pass Christ'n	Shaffer Bros	Electric-light Plant.
Paducah Southern Spoke Co.	Spoke, Hub. &c., Facty.	Vicksburg	M. S. Hasie	. Brewery.
PaducahSouthern Spoke Co PinevilleSouthern Land Imp. Co PinevilleBig Sandy Coal & Min. Co.	Coal & Iron Mines, &c.	Winona	Southn. Ice & Cold Stor- age Co., of Chatt Tenn.	Ice Factory.
Pineville Log Mountain Coal, Coke & Timber Co	Mining, Mfg. &c.		NORTH CAROL	
Pineville Pineville Mfg. Co	Planing Mill, Sash, Door & Blind Factory, &c.	Asheboro	Asheboro Roller Mill Co.	*Flour Mill.
Somerset Home Fruit Canning Co SomersetSom. Rubber Stamp Wks	Canning Factory.	Asheville {	phur Springs Ry. Co	Electric-power Plant.
Somerset   Somerset Stave & Head-   ing Wks	Stave & Heading Facty.	Asheville	west Asheville & Sul- phur Springs Ry. Co S L. C. Shuey	Rock Quarry.
Woodlawn Greenbrier Distillery Co	Distillery.	Aurelian	W. C. Daniel	Saw Mill.
Winchester C. F. Klein	Ice Factory.	Rine Wing	Greenville Copper Co	Mining, &c.
LOUISIANA.		Dlue Wine	W Doker & Co	Iron Mines
Alexandria { Planters Cotton-seed Oil }	Cotton-seed Oil Mill.	Burlington	J. W. L. Arthur Hay & Terreli P. K. McLean.	Publishing. Saw Mill.
Alexandria E. N. Weems	tSugar-house.	Char otte }	Rlind Mfg Co	Increase Capital.
Algiers Algiers Ice Mfg. Co	Electric-light Plant. Water Works.	Charlotte	Highland Park Mig. Co Highland Park Mig. Co.	Cotton & Woolen Mill.
		Charlotte	Blakey Printing Co	Printing Works. Sash, Door, Blind &
Arcadia	Lumber Mill.	Conover	Blakey Printing Co Conover Lumber & Wheel Mfg. Co	Wheel Vactory
JarboesvilleClark, Frey & Co	Box, Can & Cann'g Fac.	Davidson Col.	Stough, Cornelius & Co Goldsborough Lumb. Co	TCotton Mill.
		Durham	Carteret Lodge Kramber, Bros. & Co	Cot. Gins. Grist Mills. &
Lake Charles. Calcasieu Sugar Co., Ltd. Lake Charles. Calcasieu Sugar Co., Ltd. Lake Charles Lee Light)	Electric-light Plant.	Elizabethtown	W. B. Hester & Bro	tSaw Mill.
Lake Charles { Lake Charles Ice, Light & Water Works Co }	Electric-light Plant. Cotton-seed Oil Mill.	Graham	Etkin Mfg. Co Graham Cotton Mills	Cotton Mill.
Lakerand M. D. Funnips	Electric-light Plant. Saw & Planing Mill.	Greensboro.	Greensboro Female Col- lege Association § Gold King Mining Co	Electric-light Plant.
Napoleonville, Durand & Bienvenn	Sugar-house.	Henderson	Hend. Light & Power Co Novelty Wood Works	†Electric-light Plant.
New Orleans Consumers' Seltzer & 1 Mineral Water Mfg. Co.	Mineral Water Factory.	High Point	city	Electric-light Plant.
New Orleans Enterprise Construction t & Supply Co., Limtd. 1 New Orleans. St. James Timber Co., Ltd !	Manufacture Lumber	High Point.	& Shuttle Co	Bobbin, Spool, &c., Fac.
New Orleans. Louis Schultz	ron Forge.	High Point.	ligh Point Broom & { Canning Co	Dou le Capacity.
New Orleans Hugh Flynn Co I	Furn. & Mattress Facty.	Kinston	McL. Cameron Louisbg. Bldg. & Imp. Co.	ISaw Mill.
New Orleans Ventilated Bbl. & Wood   1	Barrel, &c., Factory,	Louisburg (	. M. Cooke	Tobacco Factory.
No. Onleans In Deinting & Dub Co 4	Deinting Works	MooresvilleJ	George H. Cooper	Sash. Door & Blind Fac
New Orleans La. Land & Fisheries I Co., Limited.  New Orleans La. Constn. & Imp. Co	Development.	Monroe	. W. Brown. . W. Brown. . Monroe Cotton Mill	Cotton Mill.
PlaquemineJ. D. Murrell		Mt. Airy	donroe Cotton Mill cranite City Land & Im- provement Co	Increase Capital.
Shriver J. T. Moore	Electric-light Plant.	New Berne.	berton, Va	Saw Mill.
Thibodeaux Whitehead & Kent.	Sugar-house.	New Berne.	ber Co	Manufacture Lumb., &c
ThibodeauxWhitehead & Kent	ash Door & Bli-4			
White Castle   White Castle Lumber &   S	Factory.	New Berne	New Berne Improved Cotton Ginning Co	Ice Factory.
MARYLAND.	Water Works.		tanly Mfg. Co	
Baltimore Roland Park Co	Gas Works. Electric-light Plant.	N. Wilkesboro.	. A. Church	Medicine Factory.
Raltimore Balto, Corset & Nov. Wks. +	Corset Factory.		bsher & Church	
Baltimore Brilliant Sign Letter Co Baltimore Becker Bros. & Son	Box Factory.	RaleighP	ryan Tyson and others(hillip Taylor	Tobacco Factory.
Baltimore   Balto. Gas Fixture & Art Metal Mfg. Co   G	as Fixtures Works.	RaleighV	V. H. J. Goodwin	Wine Distillery. Cotton-chopper Factory
Baltimore Southern Electric Co Baltimore Seth S. Hance Drug Co I	Orug Factory.	RamseurV	V. E. Caples	Chair Factory.
Baltimore Montgomery Mining Co. M. Baltimore Frederick Euler P. Baltimore Brigham. Hopkins & Co. M.	aper-box Factory.			
Baltimore Brigham. Hopkins & Co	Printers' Supply Wks.	Rutherfordton F	rank Reynolds, of Ayr	Fannery. Horse-collar Factory.
Baltimore Fowler & Carter	arriage Factory.	Salem	. H. Fries	Electric-light Plant.
Baltimore Lehman Mfg. Co Baltimore Strohm Printing Co P Baltimore American Oil Projectile Co.C	lectrical Supply Wke	Scotland Neck.S Smithfield V	cot, Neck Cotton Millsl /alter Randl	ncrease Capital. Planing Mill.
Baltimore American Oil Projectile Co.C. Baltimore Baltimore City Cold Stor- (	old-storage Plant	South River J.	L. Lindsay & Co	Flour Mill.
Baltimore   Baltimore City Cold Stor-   Care Baltimore   Baltimore City Cold Stor-   Care Baltimore   Claremont Abattoir Co   Abat	aking-powder, &c., Fct.			
Raitimore Unesabeake Stove CoS	tove works.	Statesville } E	. J. & A. G. Stafford, of Kernersville	Tobacco Factory.
Raltimore South Baltimore Co M	lanufactures, &c.	StatesvilleL	ong Island Cotton Mills.	Cotton Mill.
Baltimore Maryland Chip Beef Co		Tarboro F	S. Royster.	Pertilizer Factory.
Baltimore Graining & Decorating Co. M Baltimore Oriole Tablet Machine Co. M Branchville   Brighton Park Mutual   E Home & Invest'nt Co.   Brunswick Brunswick Pure Water Co. W	lachine Works. lectric-light & Gas	Tarboro J.	F. Shackelford	Knitting M.II.
Brunswick Brunswick Pure Water Co. W	Works. &c.	Williameton W	meton Furn & Mfg Co I	rownstone Quarries.
Cockeysville Sherwood Distilling Co †1	low Works. Distillery.	Wilmington A.	W. Rieger P. Oldham & Co	Rice-cleaning Mill.
Cumberland Cumberland Electrical Co.+1	Electrical Works.	WinstonC.	H. Tise	fachine Works.

NUFACTURE	RS' RECO	RD.
LOCATION. NAME.	BUSINESS.	T
Dorsey Southern Land Co Dorsey Dorsey	Manufactures, &c.	Loc
Dorsey	Iron Fence Factory.	Abbey
Dorsey	Machine Works.	Bambe
Ellicott CityJoseph Schrieher, of B	altElectric light Plant.	Benne
Dorsey Dorsey Dorsey Ellicott City Joseph Schrieher, of B Frederick Frederick City Cann'g Gaithersburg Gaithersb'g Mill.&Mig. Sorrett Co   Silver Bell Mining Co	.Co. Electric-light Plant.	Blacks
Garrett Co. Silver Bell Mining Co	Mining, &c.	Black
Garrett Co. Silver Beil milling Co.  Georget'n, D. C.  Hagerstown. United Silk Mfg. Co. Hagerstown. Windsor Knitting Mill Laurel. J. E. Ronenfield & Co., of Baltimore. Luke. J. West Va. Paper Co., Piedmont, W. Va. Mill Green A. J. Famous Parsonburgh. J. W. Wimbrow. Washington, D. C. Automatic Machine Co. Washington, J. Carpenter Electric Ligh D. C. J. & Motor Co. Washington, Washington & George D. C. J. Washington & George J. Washington, D. C. Knight Safety Elevator Vashingn, D. C. Knight Safety Elevator Vashingn, D. C. National Electric Co. Vashingn, D. C. National Electric Co. Vest Point. J. Tel. & Elect. & Pow. Co. Voodberry. Druid Mills Co.	Steam Laundry.	Brewe
HagerstownUnited Silk Mfg. Co	Electric light Plant.	Camde
Hagerstown Windsor Knitting Mill	sKnitting Mill.	Camdo
Laurel E. Ronenfield & Co., of	Shirt Factory.	Campo Carlis Charle
West Va. Paper Co.,	of Paner Mill.	Charle
Mill Green A. I. Famous	Canning Factory.	Charle
ParsonsburgG. H. Parsons	Gas Well.	Charle
Parsonburgh. J. W. Wimbrow	Gas Wells.	Charle
Washington, ) Carpenter Electric Light	t ( Electric-light Plant &c	Charle
D. C & Motor Co		Charle
D. C. town R. R. Co	Power Plant.	Charle
Washingo, D.C. Knight Safety Elevator	Co. Elevator Works.	Charle
Washingn, DC. National Electric Co	Electric light Plant.	Colum
Vest Point Tel. & Elec-lt.& Pow. Co	Plant.	Colum
VoodberryDruid Mills Co	†Cotton Mill.	Darlin Darlin
MISSISSIP	PT.	
Chitta Normood & Butterfield	Co thou Mill	Floren
harleston   Schlitz Brewing Co.,	of Stave & Heading Fac	Fort N
marieston) Milwaukee, Wis	Iron Furnace	Gaffne
nterprise	Cotton Mill.	Green
Stabuchie Estabuchie Lumber Co.	‡Planing Mill.	Green
ogue Chitto . Norwood & Butterfield ( Charleston Schlitz Brewing Co., of Milwalkee, Wis Interprise Stabuchie Estabuchie Lumber Co. Stabuchie J. E. Land Greenville Greenv. Cot. Press Ass's Iuntington { J. M. Adams, of Ft. Worth Texas Edison Electric Power deridan Queen City Mig Co	n. Cotton Compress.	Inglesi
luntington J. M. Adams, of Ft.	Saw & Shingle Mill.	Jackso
leridian Edison Electric Power	Co.Eleclt. & Power Plant.	Laurer
leridian Queen City M/g Co fuldon W. T. Evans & Co atchez N. Y. Hardwood Lum (	tWagon Works.	Lexing
atchez N. Y. Hardwood Lum. (	Co.†Saw Mill.	Marion
atchez Natchez Coffin Co	) sasn, Door, Blind and	Mayes
ass Christian. Pass Chris. Elec. Lt. Co	Electric-light Plant.	McColl
ass Christ'n Shaffer Bros	Electric-light Plant.	Prospe
ort Gibson M. S. Hasie	Water Works. Brewery.	Rock F
icksburg		Rock F
age Co., of Chatt Tenn	. free Pactory.	Rock F
NORTH CARO	LINA.	Rock F
sheboro Asheboro Roller Mill Co	*Flour Mill.	Spartar
sheville West Asheville & Sul-	Electric-power Plant.	Sumter
sheville L.C. Shuey	Rock Quarry.	Union Varnvi
sheville Blue Ridge Hedge &	Wire Fence Factory.	Walhal
urelian W. C. Daniel	Saw Mill.	Wallian
ue WingGreenville Copper Co	Mining Factory.	
sheboro Asheboro Roller Mill Candon Asheboro Roller As	Iron Mines.	Allento Arthur.
ryson CityJ. W. L. Arthur urlington Hay & Terrell	Picker Stick Factory.	Arthur. Athens
arthageP. K. McLean	‡Saw Mill.	Bristol. Chattar
har otte Blind Mfg. Co	Increase Capital.	Chattar Chattar
harlotte Highland Park Mig. Co.	Cotton & Woolen Mill.	Chattar
harlotteBlakey Printing Co	Printing Works.	Chattan
onover Conover Lumber &	Sash, Door, Blind &	Chattar
allasDallas Cotton Mill Co	*Cotton Mill	Chattan
avideon Col. Stough, Cornelius & Co.	†Cotton Mill.	Chattan
urhamCarteret Lodge	Cot. Gins, Grist Mills, &c.	Chattan
izabeth City. Kramber, Bros. & Co	Building-material Fac.	Chattan
kin Eikin Mfg. Co	. †Cotton Mill.	Clarksy
AhamGraham Cotton Mills	Cotton Mill.	Clinton
eensboro lege Association	Electric-light Plant.	Dover.
reensboro'gh Gold King Mining Co	Mining,	
avidson Col. Stough, Cornelius & Co. voer	†Novelty Works.	Duckto
gh Point City Southern Bobbin, Spool	Electric-light Plant.	E. Kno
gh Point. & Shuttle Co	Bobbin, Spool, &c., Fac.	
gh Point.   High Point Broom &	Dou le Capacity.	Elora
ng's Mount. P. R. Elam.	Manganese Mine.	Elera Gorman
uisburg Louisbg. Bldg. & Imp. C	o. Tobacco Factory.	Gorman Harrima
uisburg. C. M. Cooke	Tobacco Factory.	Harrim
oresvilleJ. W. Brown.	Sash. Door & Blind Fac.	Harrim
enderson Hend. Light & Power Cockory Novelty Wood Works, gh Point City Shuttle Co gh Point City Shuttle Co gh Point Southern Bobbin, Spool & Shuttle Co gh Point Good High Point Broom & Canning Co Canning Co A McL. Cameron uisburg C. M. Cooke Cooke Luisburg C. M. Cooke Cooke Morroe Monroe Cotton Mill J. W. Brown Monroe Cotton Mill J. W. Brown Monroe Cotton Mill J. F. Prettyman, of Pemberton, Va Washers Morroe Cotton Ginning Co Me Berne A. M. Baket We Berne A. M. Baket We Berne New Berne laproved Cotton Ginning Co. w. London Stanly Mfg. Co. w.	Cotton Mill	Iron Cit
Airy J Granite City Land & Im-	Increase Capital	Jackson
provement Co	lo sem	lackson
w Berne. berton, Va	Saw Mill.	Jasper. Johnson
w Berne Carolina Tram & Lum-	Manufacture Lumb., &c.	Knoxvi
w BerneA. M. Baker	Mattress Factory.	Knoxvil
w Berne   New Berne Improved	Cotton Ginnery.	Knoxvil
w Berne New Berne Ice Co	.tlce Factory.	Knoxvil
wton	†Four Mill.	Knoxvil
Wilkesboro.T. A. Church	Wagon Factory.	Knoxvii
Wilkesboro.Absher & Church	S. Mill, Sash & Blind Fac.	Knoxvil
wirkesboro. N. Wilkes. Publishing Co	Gold Mine	Lawrence
leigh Phillip Taylor	Tobacco Factory.	Loudon.
leigh	. Wine Distillery.	Mascot .
leigh R. L. Robinson Pub. Co.	Publishing.	Milan Montval
mseur W. E. Caples	Mig. Harness, &c.	Nashvil
Wilkesboro. N. Wilkes. Publishing C. sperity. Bryan Tyson and others. leigh. Phillip Taylor leigh. Junaluskee Wine Co. leigh. W. H. J. Goodwin. leigh. W. E. Apples. leigh. W. E. Caples. w. E. Caples. cky Mount. Thorpe & Ricks. therfordton J. W. Bean.	Tobacco Factory.	Nashvili N. Knoz
therfordton Frank Reynolds, of Ayr	Horse-collar Factory	Paris
emH. H. Fries	Electric-light Plant.	Rockwo
		Shelbyvi
ithfield Walter Rand	Planing Mill.	So. Pitts So. Wats
th RiverJ. L. Lindsay & Co	Woodworking Factory	South W
ithfield Walter Rand th River J. L. Lindsay & Co nley Creek William Peterson,	Machine Shop.	Sparta Strawber
niey Creek. Nims Mig. Co	Brick Works.	PI
nley Creek. Nims Mfg. Co tesville E. J. & A. G. Stafford, of Kernersville	Tobacco Factory.	Sweetwa Tazewel
tesvilleLong Island Cotton Mills	3 Tobacco Factories.	Tennesse
tesvilleLong Island Cotton Mills boroF. S. Roysterboro	Fertilizer Factory.	
boro I. F. Shackelford	rear ut-cleaning Mill.	Abilene.

_	
	COVERT CAROLINA
	SOUTH CAROLINA.
	LOCATION. NAME. BUSINESS.
	Abbeville Enterprise Ginnery Co Brick Works, Cotton Ginnery &c.
	Anderson
	Bennettsville Steam Laundry.
	Bennettsville McCall Mfg. Co Cotton Mill.
	BlacksburgIra Hardin Saw M II.
	Bennettaville
	Down Mine Contentia.
	Camden Brick Works.
	Campobello McDowell, Barnett & Co. Saw Mill. Carlisle G. E. Tucker
	Carlisle G. E. Tucker Corn & Flour Mill & Gla.
	Charleston Charleston Rice Mill'g Co. Barrel Factory.
	Charleston Archdale Phos & Min. Co. Phosphate Mines.
	Charleston Valk & Murdoch from Wks. Baharge Plant. Charleston Piedmont Guano Co Fertilizer Factory. Charleston Piedmont Guano Co Fertilizer Factory. Charleston Economic Light & Pow Co. Electric-light Plant. Charleston Economic Light & Pow Co. Electric-light Plant.
	Charleston Puckhaher Rece Candy Factory
	Charleston Economic Light & Pow Co. Electric-light Plant
	Charleston Carolina Clothing Co Clothing Factory.
kc.	Charleston Ashpoo Phosphate Co Increase Capital.
	Charleston . Southern Prepared Flour   †Flour Mill.
	Charleston Piedmont Guano Co Increase Capital
*	ChesterfieldI. H. Ryhne & Son Brick Works.
	Columbia Columbia Water Pow. Co. Develop Water Power.
7	Columbia Stewart Stone Co tGranite Quarries.
	Columbia Atlantic Cotton Comp. Co. Cotton Compress.
	Darlington Darlington Cot Comp. Co Cotton Compress
	Edgefield Canning Factory.
	Florence Coffin & Perry Brick Works.
	FlorenceJ. H. Evans Printing Works.
	Gaffney City Water Works
	Glendale D. E. Converse Mfg. Co., +Cotton Mill.
1	Charleston Economic Light & Pow Co. Electric-light Plant, Charleston Carolina Clothing Co **Clothing Factory, Charleston Carolina Clothing Co **Clothing Factory, Charleston Ashpoo Phosphate Co Increase Capital. Charleston   & Grain Co   †Flour Mill.   Charleston   **Southern Prepared Flour   †Flour Mill.   Charleston   **Piedmont Guano Co     †Flour Mill.   Charleston   **Piedmont Guano Co
	Greenwood Greenwood Oil Mill. Electric-light Plant.
	Greenwood Greenwood Cotton Oil Co.Add. Machinery.
	Ingleside Ingles. Min. & Mfg. Co.   Marl Mining &c
1	JacksonboroCar. Mining & Míg. Co Pnos. Mines & Works
i.	Laurens Magic City Drug Co. Drug Factory.
	Marion Morgan & Rianton Tangers
1	Marion Woodworking Factors
ad	Mayesville Henry Spann Saw Mill.
	Greenwood Greenwood Cotton Oil Co. Add. Machinery, Ingleside Ingles. Min. & Míg. Co Inne & Cement Works. Jacksonboro Car. Mining & Míg. Co Phos. Mines & Works. Laurens Magic City Drug Co Drug Factory, Lexington Lexington Míg. Co Cotton Mill. Marion Morgan & Blanton Tannery, Marion Morgan & Saw Mill. McCellanvie. Cape Romain Lud & Im. Co. Development. McColl McColl Míg. Co Cotton Mill.
	McColl
	Prosperity Ginnery & 1 Brick Works & Course
	Prosperity Mig. Co Ginnery.
	Rock HillCreighton, Sherfessee & Co. Iron Foundry.
-	Rock Hill City
1	Rock Hill. Creighton, Sherfessee & Co. Iron Foundry. Rock Hill. City. Water Works. Rock Hill. Site Co. Rock Hill. Site Co. Holler & Anderson Buggground Spy Co. Spartanburg Morgan Iron Works Brick Works. Spartanburg Morgan Iron Works Brick Works. Sumter. L. R. Jennings & Co. Brick Works. Timmonsyille. Timmonsyille Wagon Co. Wagon Factory. Union. Union Steam Laundry Steam Laundry. Varnville. E. R. Grimm Saw & Planing Mill. Walhalla. Ohalga Tobacco Co. Tobacco Factory, &c.
- 1	Holler & Anderson Rug.
- 1	Rock Hill } gy Co } †Vehicle Factory.
- 1	Spartanburg Morgan Iron Works + Brick Wks. & Iron Wks.
- 1	SumterL. R. Jennings & Co Brick Works.
- 1	Union
- 1	Varnville E. R. Grimm Saw & Planing Mill.
- 1	Walhalla Ohalga Tobacco Co Tobacco Factory, &c.
	TENNESSEE
1	Allentown Allentown Mfg. Co
	Arthur Arthur Radiator Mfg. Co., Radiator Factory
	Athens E. Tenn. Shing. & Lath Co Lath & Shingle Mill
1	Bristol r W. A. Sparger †Cotton Mill.
	Chattanooga Southern Iron Co †Bessemer Steel Plant,
	Chattanooga Chatt. Cotton & Comp. Co Cotton Compress.
	Chattanooga Chatt. Water & Elec. Co
	Chattanooga Chattanooga Iron Co Improve Furnace.
	Chattanooga Crescent Mfg. Co room & Brush Factory.
	Chattanooga Frictionless Metal Co. Metal Work
	Chattanoga D. P. Montague
	Chattanooga Dayton Coale Flore Co. From Mines.  Chattanooga   Ross-Mehan Brake Shoe   Add. Machinery.  Foundry Co.   Add. Machinery.  Chattanooga Chatt. Elevator M'g. Co. †Elevator Works.  Chattanooga Artificial Stone Works.  Clarkaville Peacher Mills Co. †Flour & Woolen Mills.
c.	Chattanooga Chatt. Elevator M'g. Co. + Elevator Works
	ChattanoogaArtificial Stone Works
1	Clarksville Peacher Mills Co †Flour & Woolen Mills.
	CHROHAMA THE CO.
	Clinton
	Dover Grist Mill.
	(F. M. Hight, of Annis-)
	Ducktown ton, Ala., and W. E. Copper Mines.
	Lonsdale Resument Was
	E. Knoxville ter Co Water Works.
	Elora Lincoln County Land & Stone Quarries.
	Ducktown.   F. M. Hight, of Annis   ton, Ala, and W. E. Horn, of Atlanta, Ga.   Lincoln County Land & Stone Quarries.   Lincoln County Land & Lincoln
	Gorman A. G. Brown Saw Mill
	C 7 337 D 1-1-
	Harriman Harriman Furnace Co fron Furnace.
	Harriman S.K. Paige Lum. & Mig. Co. SawMill& Woodking Fac.
.	Humboldt Southern Spoke Co tSpoke Factory
	Iron City Iron City Land Co Irn, Min., Marb, Our &c.
	ron City Atley & Reynolds Coffin & Furniture Fac.
1	ackson I. I. Wells' Sons
1	JasperJasper Iron Co
1	ohnson City . Graham Ice Mfg. Co lce Factory.
	Knoxville Williams-Sharp Sadl'ryCo. †Harness & Sadl'ry Fac.
1	Knowville Cumberland Mining Co. Mining Factory.
	Knoxville Ventilating Grate Co Grate Factory
li	Knoxville Knoxv'le Indus. Devel. Co. Manufactures.
. 1	Knoxville Cedar Mountain Iron & Iron & Steel Plant
1	Knoxville
1	KnoxvilleCanning Factory.
. 1	Knoxville Davidson County Insane   Laundry etc. Rl. lt. Plut.
1	awrencehury Newton & Trescott
1	Lenoir City Lum & Mfg. Co. Furni B. c. & Saw Mil
li	oudon Tenn. River Boom Co Lumber Boom.
1	Mascot Glasser, Whittle & Nicely Flour Mill.
1	Montrale Montrale Mining Co Flour Mill.
1 5	Nashville Frank Kendrick Gas Well
li	Nashville Theo. Tafel Surgical Instrume t Fac.
1	N. Knozville. J. J. Martin Steam Laundry.
1	Paris Empire Tobacco Works Tobacco Factory.
1	Rockwood nr \ Wood Coal Mines.
1 5	helbyville Water Works.
1 5	o. Pittsburg. Ingle & MorrisSteam Laundry.
1 5	o. Watauga Smith & Murray Lumber Mill.
20	Gormain. H. W. Daniels. Tsaw Mill. Harriman Harriman Furnace Co. Iron Farnace. Harriman S.K. Paige Lum. & Mig. Co. Saw Mill. Woodking Fac. Harriman S. W. Paige Lum. & Mig. Co. Saw Mill. Works. Humboldt Southern Spoke Co. Tspoke Factory. Iron City Iron City Land Co. Irn. Min., Marb. Qur. & C. Iron City Alley & Reynolds. Coffin & Furniture Fac. Iackson. U. R. Heavner & Co. Woodworking Factory. Iackson. J. I. Wells' Sons. Handle Factory. Iasper Jasper Iron Co. Iron & Steel Works. Iohnson City Graham Ice Mig. Co. Itoe Factory. Knoxville. Williams-Sharp Sadi'ry Co. Harness & Sadi'ry Fac. Knoxville. Williams-Sharp Sadi'ry Co. Harness & Sadi'ry Fac. Knoxville. Cumberland Mining Co. Mining. Knoxville. Cumberland Mining Co. Mining. Knoxville. Whow I Iron & Steel Plant. Knoxville. Knoxvile House Devel. Co. Manufactures. Knoxville. Steel Co. Tron & Steel Plant. Knoxville. Hub, Spoke, etc., Fact'y. Knoxville. Canning Factory. Knoxville. Canning Factory. Knoxville. Canning Factory. Knoxville. Canning Factory. Knoxville. Hub, Spoke, etc., Fact'y. Knoxville. Canning Factory. Knoxville. Saw Mill. Milan. Milan Mig. Co. Iron. Froit Evaporator. Lenoir City Lum. & Nieg. Flour Mill. Milan. Milan Mig. Co. Flour Mill. Milan. Milan Mig. Co. Gas Well. N. Knoxville. Theo. Tafel. Surgical Instrume. Fac. N. Knoxville. Theo. Ta
200	trawberry   H Sansahangh & Sans Alliang Miles, C acovas ac
1	Plains. J. H. Sensaoaugn & Sons Triour Mill.
15	weetwaterG. T. MageetFlour Mill.
1	weetwaterG. T. Magee†Flour Mill. azewell
1.	MINTS A CO
	TEXAS,
A	tlanta Atlanta Lumber Co Lumber Mill
A	ustinL. & H. Blum Land CoIncrease Capital.
A	ustin†Publishing.
A	Abilene. Steam Laundry.  Itlanta Atlanta Lumber Co. Lumber Mill.  Lustin. L. & H. Blum Land Co. Increase Capital.  Lustin. Publishing.  (West Union Protective & Detective Associa'n. Publishing, etc.  aird Baird Water & Power Co. Water Works.  "Water Works.
P	aird Baird Water & Power Co., Water Works
B	allinger City *Water Works,
	10-7-11-11

LOCATION.  Bellevue	BUSINESS.
Bellevue Scarborough Mill& GinCo	o.Gin & Grist Mill.
Belton Belton Water Co	Cotton Comp. Oil Mill
Brenham & Mig. Co	& Fertilizer Factory.
Corpus Christi.	. Water Works.
Corsicana Corsi na Station y & PubCo	Flectric-L oht Plant
Dallas South, Germicide Mfg Co	o. Medicine Factory.
Dallas Trinity River Naviga. Co	Build Steamboats, etc.
Dallas J. B Simpson	Candy Factory.
Denison Denison Kolling Mill Co.	Increase Capital.
Dublin	Tannery.
Fort Worth C. H. Martin	Carpet-cleaning Works.
Fort Worth Tevas Brewing Co.	*Rrewery.
Galveston Galveston Wharf Co	Grain Elevator.
Galveston Galves. Fish & Oyster Co	Manufacture Conding at
GalvestonBluenelds Banana Co	Brick Works
Grand Saline. T. B. Meeks	. Brick Works.
GradyC. A. Bains	†Flour Mill & Gin.
Groesbeck Anglin & Risien	Grist Mill & Gin.
Hallettsville Lavaca Oil Co	Factory, etc.
Hamilton S. D. Felt	+Gin & Flour Mill
Hil'sboro	Water Works.
Hillsboro Honey Grove Cat Oil Co	Cotton-seed Oil Mill
JacksonvilleJacksonville Canning Co.	.†Canning Factory.
Jefferson W. K. Henderson Lum. Co	o.tSaw Mill
Junction City	Coal Mines & Oil Wells.
LampasasS. I. Payne	Cigar Factory.
LeonardC. M. Gunn	. Mattress Factory.
Liano Pioneer Mining Co	- Mining, etc.
Longview Longview Ice Co.	.lice Factory.
Magnum Star Printing,	Printing Works, etc.
Mangum ) Pub. & Town Site Co.	*Euspituse and Wood
Marshall Woodworking Co	working Factory.
Memphis D. B. Powers	. Flour and Meal Mill.
Mineola Mineola Cooperage Co	Barrel Factory.
Montague Canning Co	.Canning Factory.
Montague stoning de Cananag	Ice. Broom & Paint Fac.,
Myrtle Sp'gs. Texas Land & Impro.Co- N.Birmingh'm. New Birm. Iron & Imp. Co- Palestine Palestine Water Co- Palestine Palestine Water Co- Paris Prederick Warmholz Paris Print'g House. Pittsburgh J. W. Thomas. Pittsburgh A. A. Moriis & others. Rockdale Rockdale Rockd'e Cotton s'd Oil Ce Rockland. South. Pacific Railroad C Rockland. Adridge Lumber Co- San Angelo. San Ang. Wool Scour Mill San Antonio. San Ant. Rap. Tran. RR. Co- San Antonio.	Woodworking Fac.,
at planta shim New Riem Iron & Imp Co	Oper Forn Mines etc.
Palestine Palestine Water Co	.Improve Works.
Paris Frederick Warmholz	.Cigar Factory.
Paris Marshall's Print'g House.	Publishing.
Pittsburgh R. A. Morris & others	. Barrel Factory.
Ouanah White & Sinnett	. Broom Factory.
Rockdale Cotton ald Oli Co	Electric-light Plant.
Rockdale Kockd'e Cotton-s'd Off Co	Rock Operries
Rockland Aldridge Lumber Co	.tSaw Mill.
San AngeloSan Ang. Wool Scour Mill	.Wool-scouring Mill.
San Antonio. San Ant. Kap. Tran. KK.Co	Ornamental Iron Who
StephenvilleW. C. Baldwin	.Electric- ight Plant.
Stephenvil e James Beech	.Cotton Ginnery.
Sugar LandE H. Cunningham	Sugar Kennery.
Terrell Terrell Milling Co	†Flour Mil.
Texatkana Ingersoll Lumber Co	.Lumber Mill.
San Antonio. San Ant. Rap. I ram. R. L. C. San Antonio	Oil Well.
Wasa Rell Water Co	Improve Works.
Waco Hubby & Gorman	Grain Elevator.
Trickham. Sunset Oli Co. Velasco. O. Chisholm. Waco. Bell Water Co. Waco. Hubby & Gorman Weatherford. Aichita Falls. Victoria Iron Works	.†Cottonseed-oil Mill.
Aichita FallsVictoria Iron Works	Iron Works.
VIRGINIA	
Alexandria Robert Portner Brew. Co.	.+ Dotting Works.

VIRGINIA,
Alexandria Robert Portner Brew. Co., Bottling Works, Alexandria Lathrop Min. & Reduc. Co Mining, &c. Alexandria Elk River L'nd & Lum, Co Lumber Mill. Basic City King & Kellogg Ochre Mill. Basic City Imp. Cross Investment Co.B. J. It. & Gas Wks. &c.
Bedford City. Anson M. Field, of Jeri-Pump Works.
Berkeley   Greenleaf Johnson Lum-
Alexandria Elk River L'nd & Lum. Co Lumber Mill. Basic City. King & Kellogg. Ochre Mill. Basic City. Iron Cross in vestment Co. Ellt. & Gas Wks., &c. Anson M. Field, of Jeri- cho Vt. Service Saw Mill. Berkeley Greenleaf Johnson Lum- ber Co. Water Works. Buchauan Central Land Co. Water Works. Burkeville. Burkeville Granite Co. Granite Quarries. Charlottesvile. J. W. Shallcross and oths. Creamery. Charlottesvile. Ettlas. Steam Laundry. Charlottesvile. Charlottes. Cooperage Co. Barrel Factory, &c. Charlottesvile. Pike County Coal Co. Coal Mines. &c.
Charlottesv'le. Charlottes. Cooperage Co. Barrel Factory, &c. Charlottesv'le. Pike County Coal Co Coal Mines, &c.
Charlottesy'le-Pike County Coal Co
Cloverdale Johnston & Weirmarx, Granite Quarries, of Cincinnati, Ohio.
Cornwall   Trish Creek Mineral &   Electric-light Plant.   Covington Craig Valley Mining Co, Iron Mines.   Brick Works
Covington Craig vancy mining con
Folly MillsDanner & CoLime Works, FranklinJackson Brick & Tile Co. Add. Machinery, FranklinLee Mig. CoBuilding Material Pcty.
F edericksb'g .Spottswood L'd & Min.Co.Lumber Mill, &c., Front Royal Royal Water Co Water Works.
Gordonsville H. T. Rockey, Manager. Broom, Whisk & Mat- tress Factory.
Goshen Goshen Car & Railway ACar Works.
Danville Danville Brick Co Brick Works. Folly Mills Danner & Co Lime Works. Franklin Jackson Brick & Tile Co. Add. Machinery. Franklin Lee Mig. Co Building Material Fcty. Federicksby'g. Spottswood L'd& Min.Co. Lumber Mill. &c. Front Royal Royal Water Co Water Works. Gordonsville H. T. Rockey, Manager. Goshen Barr Brick Co Brick Works. Goshen Goshen Car & Railway Equipment Co Woodworking Factory. Graham Graham. Bluefield Elec. Co *Electric-light Plant. Graham Graham. Bluefield Elec. Co *Co.al Mines, &c. Harrisonburg. Harrisonburg fee Mig. Co. fice Factory. Rockingham Comb. Slat Harrisonb'g. & Wire Fence Mach. Co. Vanhoe J. H. Gill Iron Fdy. & Mach. Shop. Ivanhoe J. H. Gill Iron Furnace. Lambert's Pt. Norfolk & West, R.R. Co. Machine Shops. Laurel Mills. Rappaham, Wool'n Mills Co. Woolen Mill. Lexington Lexington Quarry Co Stone Quarries.
Harrisonb'g. Rockingham Comb. Slat   Machine Works.
Iron GateAll gheny Iron Co*Iron Furnace, Ivanhoe J. H. Gill
Lamber's Pt. Norfolk & West, R.R. Co. Machine Shops, Laurel Mills. Rappahan. Wool'n Mills Co. Woolen Mill.
Lexington. Lexington Quarry Co Stone Quarries. Low Moor & E. J. Bird, Jr., of Ironton, Nail Works & Rolling Lynchburg. Washington Zine Co 2Zine Works.
Lynchburg Washington Zinc CotZinc Works. Lynchburg Southern Electric Co Electrical Works. Lynchburg Venable & Gallehorn Iron Mines.
Manchester Toler & Son
Norfolk Merchants' & Farmers' Peanut-cleaning Mill.
Lynchburg Southern Electric Co Electrical Works. Lynchburg Venable & Galleborn Iron Mines. Manchester Toler & Son
Norfolk Virginia Construction Co. Engineering, &c. Norfolk Virginia Construction Co. Engineering, &c. Norfolk Virginia Construction Co. Engineering, &c. Norfolk U. S. Navy-yard Electric-light Plant. Peteraburg Pocahontas Mill Co Cotton Mill. Plaski City Water Works. Pulaski City Pulaski Electric Co Electric-light Plant. Radford Rad. Wtr., Lt. & Pow.Co. {Gas & Water Works. Raisswood Richard Sydnor \$5aw Mill. Richmosd Continental Develop Co { Water Works. } Manufacturing, &c. Richmond Holt Irap. Wtr. Fliter'g Co. Water-sliter Works. Richmond C. F. Sauer & Co Extract, &c., Factory.
Radford Rad Wtr. I. & Pow Co. Selectric-light Plant.
Rainswood Richard Sydnor Saw Mill.
Richmond Continental Develop Co Water Works.
Richmond Holt Imp. Wtr. Filter'g Co. Water-filter Works. Richmond C. F. Sauer & Co Extract, &c., Factory.

LOCATION.	NAME.	BUSINESS.
Richmond Atla.	it.c & Va. Fer. Co	Boot & Shoe Factory.
Richmond   Sout	hern Mfg. Co	Coffee Roasting. Grist & Hominy Mill.
RoanokeRoan	rton Mills Co	.+Flour Mill. .+Gas Works
Roanoke Va.A	sphalt Block & Con- te Pavement Co	Paving Blocks.
Koanoke Koan	oke Mig Co	.†Lumber Mill.
	oke Ele & MillingCo	
Post oke Son	er Iron Co	Granite Quarry, &c.
Salem Saler	n Mineral Fibre Co	Mineral Fibre Factory.
Saltville Buen	a Vista Plaster Co	+Plaster Works
		Manufacture Lumber.
Savernake Saver	m'e Pressed Brick Co	Add. Dry-kilns.
Scottsville D. O.	Clements	Ext. Wks. & †Tannery.
South Boston Edme	ondson & Poindexter	Saw & Planing Mill.
Staunton A. J.	Sweeney & Sons Co.	Machine Works.
Staunton State	Dye Works	Dyeing Works, &c.
Strasburg Kelle	r, Orndorff & Co	Planing Mill.
Stanley B.	Clinedinst	Carriage & Wagon Fcty.
		El. It. & Gas Works, &c.
1 acoma D. P.	Root	Coal Mines.
Vi ginia & h	dfg. Co	Manufacture Mach'y, &c.
Waverly Sta. South	nern Veneer Co	Veneer Factory.
Waynesboro. St. R. Co.	ailway, Lt. & Power ( and City, jointly)	*Water Works.
WaynesboroF. A.	Wise.	Mar. & Brownstone Quar
	hester Times Co	
Wise County Eure	ka Coal & Coke Co	Coal Mines.
Wise CountyKent	ucky Coai & Coke Co	.Coal Mines.
Wise County   Clinc	h Val. Coal & Coke !	Coal Mines.
Wytheville R. A.	Moore & Co	Imp'ement Factory, Foundry & Mach. Wks.
	WEST VIDOR	TA

### WEST VIRGINIA.

AnstedGauley Mountain Coal Co.Coke Ovens.
Bluefield
Bramwell-Pocahontas (+Flactric-light Plant
Bridgeport
Buckhannon. Wm. Flacens & Sons, of Tannery.
Cedar GroveCedar Grove Mining Co†Coal Mines.
Central City Huntington Glass Co Glass Factory, Central City Hartzeli & Caldwell † Handle Factory,
Central CityStoddard DriggsFlour Mill,
Charleston Buckeye Cart Co Cart Factory. Charleston South Side Lumber Co Lumber Mill.
Clarksburg Elk Hill Coal & Coke Co. Cl. Mines & Coke Ovens
Crumps BottomOil Well. Elk CityElk City Foun. & Mach. Co. † Iron Foun. & Mac. Shps.
Elk City Elk City Foun.& Mach.Co.+Iron Foun. & Mac.Shps.
Fairmont
Fairmont Fairmont Carriage Co. Carriage Factory.
Elk City. Elk City Foun. & Mach. O. Trion Foun. & Mac. Snps. Elk City. Ells City Advance Co *Publishing. Fairmont
Hartford City. Mason County Office asco. Off Well.
Harrisville Keystone Oil & Gas Co Pipe Line, Huntington Hunting, Pav. & Build, Co. Brick Works
Huntington Hunting. Pav. & Build. Co. Brick Works Hurricane Hurricane Hub&SpokeCo. Hub, Spoke, &c., Fac.
Kanawha City, Kanawha City Lum, Co., Lumber Mill
Kellogg
Kenova Kenova Coal & Timber Co. Coal Mines, &c.
Keyser A. P. Retzell †Wagon Factory. Logan Sandy New Era Pub. Co. Publishing.
Mannington Burt Mtg. Co Tannervand Brick Wks. Martinsburg F. V. Aler Publishing. Maybeury Shamokin Coal & Cke. Co. Increase Capital.
Maybeury Shamokin Coal & Cke. Co. Increase Capital.
MoundsvilleMound City Brick Co Brick & Terra-cottawks.
MoundsvilleN.Gani r,of Rogersvle, Pa. Buggy & Carriage Fac.
Opekiska Acme Coal & Coke Co Coal Mines, & Carriage rac.  Opekiska Acme Coal & Coke Co Coal Mines, & Carriage rac.  Parkersburg V Va. & Pittsburg Boom } Lumber Boom.  Parkersburg Parkersburg Indus. Co Manufacturing, Etc.
Parkershurg Parkershurg Indus Co. Manufacturing Etc.
ParsonsJ. L. Poling & CoSaw Mill. Point Pleasant Point Pleasant Furn. Co. Furniture Factory.
Point Pleasant. Point Pleasant Furn. Co Furniture Factory. RonceverteRoncever. Lime & Stone Co. Lime Works.
Ronceverte W. Va. Building Co Manufacturing, &c.
Rosceverte Ronceverte Wheel Co Wheel Factory.
Ronceverte St. Lawrence Boom & Sash, Door & Blind Fac.  Ronceverte Mr. Co
Ronceverte McNaul Mach & Foun.Co. Foundry & Mac. Shop.
Springfield Springfield & New River   Mining & Manufactur'g.
Terra Alta Furniture Factory.
Terra Alta   Mountain State Mig. & Mining & Manufactur'g.
West Grafton. Grafton Creamery Co Creamery.
Terra Alta   Mountain State Mfg. &   Mining & Manufactur'g.   West Grafton. Grafton Creamery Co Creamery.   Wheeling   Eagle Glass Works Glass Factory.   Wheeling   Edison Electric Power, Electric light, Heat & Light & Heat Co   Power Plant.   Wheeling   Friendly Island Oil Co Oil Wells.   Wheeling   Home Construction Co Water Works, &c.   Wheeling   Cumberland Oil Co   Gas & Oil Wells.   Wheeling   Cumberland Oil Co   Gas & Oil Wells.   Williamson Min. &Mfg. Co. Mining & Manufactur'g.
Wheeling Electric-light Plant
WheelingFriendly Island Oil CoOil Wells.
Wheeling Home Construction Co Water Works, &c.
WilliamsonWilliamson Min.&Mfg.Co, Mining & Manufactur'g.
The state of the s

\*Reported in a previous quarterly list without full particulars as to purpose. tRebuilt or being rebuilt after being burned.

†Companies or firms in existence prior to July 4, 1801, but since that time have either enlarged their works or built new works, or increased capital. In many of these cases given in this list, reference is made to entirely new works built by old firms.

### A Market for American Manufactured Products.

Referring to the changes made by reciprocity, the New York Tribune says of our commerce with the West Indies and Brazil: "Coal, which is now to be sent from this country free of duty, was purchased by Brazil in 1889 from Great Britain in the sum of \$2,294.671, and from us of only \$46,750. Cotton manufactures, now admitted from this country at a 25 per cent. reduction, were purchased from Great Britain, \$12,499.274; from Germany, \$3,084,004, and from the United States, \$813,700. Manufactures of iron and steel, now admitted from the United States at a similar reduction, were sold by us in that year in the sum of \$938,659; by Germany, \$1,678,376, and by England, \$6,806,311. Manufactures of leather, similarly reduced, came to Brazil in 1889 from France, \$2,217,138; from England, \$1,061,135; from Germany, \$406,028, and from the United States, \$15,791. products now made free to American exporters by this treaty were imported in that year from the United States to the value of only \$3,394,633, and from other foreign countries to the value of \$16,609,306; and those the countries to the value of \$16,609,306; and those the of Pittsburg, has resigned and accepted a similar engage-tariff on which is reduced by 25 per cent. to American meat with the Ashland Steel Co., now building a Besse-exporters were imported from the United States, \$2,035,- mer steel plant at Ashland, Ky.

899, and from other countries, \$36,505,343. The value of these concessions is not a matter of speculation.

"The Cuban treaty is longer, more complicated, and probably even more valuable. Its principal features after July 1, 1892, are the admission free of iron and steel manufactures, vegetables, fish and provisions; of breadstuffs at specific duties much lower than the regular tariff of earthenware, copper, cutlery, furniture and canned goods at a reduction of 50 per cent., and of petroleum, cotton goods, paper, leather goods and paints at a reduc-tion of 25 per cent. In 1889 the Spanish West Indies imported: Breadstuffs from the United States, \$2,292,-374; from Spain, \$1,546,483; chemicals from the United States, \$302,713; from other countries, \$530,716; copper from the United States, \$24,959; from other countries, \$97.947; cotton goods from Spain, \$3,667,196; from England, \$3,268,478; from the United States, \$170,462\$ earthenware from England, \$109,642; from Spain, \$194,-337; from the United States, \$3,502, and from other countries, \$148,500; manufactures of flax and hemp from the United States, \$480,035; from England, \$2,118,694, and from Spain, \$815,425; manufactures of leather from the United States, \$205,333; from France, \$301,503, and from Spain, \$3,248,833. These figures illustrate the nature of the treaty. That it will double our export trade with Cuba is as certain as the operation of any rule of mathematics. The policy of reciprocity is as practical as any materialist could wish."

### COTTON GOODS IN SOUTH AMERICA.

Our Exports Compared with Those of Other Countries.

Mr. W. E. Curtis, the director of the Bureau of American Republics, has grouped the statistics of the cotton imports of the South American countries and Mexico in me tables which will probably prove of considerable interest to the manufacturers of cotton goods. The fol-lowing table from the New York Commercial Bulletin gives the latest statistics of exports of cotton goods to the countries south of the Gulf of Mexico and the Rio Grande, the figures for Great Britain not including wearing apparel or haberdashery, and those for France not including clothing or ready made articles of any kind:

Country to which exported.	From the	From . Gt. Britain.	France.	Tot'l for all countries.
Mexico	\$648,000	\$2,817,000	\$478 000	\$7 534.000
British Headuras	33 000	152,000	******	307 000
Central America	497,400	2,9 \2,000	*****	3 452 000
Colombia	171,000	3.523 000	439,000	4,137 000
Vene zuela		2,107,000	93,000	8,630,000
British Guiana	29,000	651,000	000000	680,000
Dutch Guiana		40,000	000000	43,000
French Guiana	1,000	30,000	34 000	130,000
Brazil	813,000	24,718 000	1,724,000	37,346 000
Uruguay	157 000	2,423,000	507,000	3 088,000
Argentine Resublic	476,000	7.742.000	2,100,000	10,319,000
Chili	501,000	4 332,060	145,000	4,860,000
Bolivia (estimated)		*****	*****	250,600
Ecuador	48,000	715 0co	8,000	772,000
Peru		1,831,000	23 868	1 921,000
British West Indies		346,000	243,000	507,000
Danish West Indies		143 000	000000	158,000
Dutch West Indies	74,600	652,000	308,000	1,091,000
Spanish West Indies	170,000	3,268,000	1,37,000	3 576,000
Hayti & San Domingo.	748 000	791,000	36,000	1,645,000
Total	\$4 887,000	\$59,128,000	\$6,186,000	\$74.567.000

The value of the piece goods exported from Great Britain during the year ending December 31, 1890, was \$39,190,791, of which \$4,000,925 went to Mexico, \$2,-972,000 to Colombia, \$12,178,805 to Brazil, \$3,971,292 to the Argentine Republic, \$2,033,482 to Central America, \$1,983,707 to Venezuela, \$2,033,472 to Uruguay, \$3,181,220 to Chili, \$3,428,648 to the British West Indies and \$5,-317,240 to other West Indies.

There is more or less cotton manufactured throughout all Central and South America, but Mexico is the only country in which there are mills of any size with improved machinery. In the other sections the work is done by hand on antique looms similar to those that were used in the time of Moses.

Regarding the quality of the goods required in the Southern countries, Mr. Curtis, in a recent paper, said:

"The clothing of the common people is ordinary drilling or shirting, with a cheap print for Sunday and Saints' days. The proud hidalgo wears a suit of cotton duck, stiffly starched, while the garments of the peons are only two-a shirt and a pair of cotton pantaloons. The goods they get from England are most flimsy fabrics, loaded with starch and pipe-clay, which bear a handsome polish and look well. They will not stand the water, but as the native laborer usually has but one suit of garments and wears them night and day, to sleep in as well as to work in, and seldom washes them, this does not make so great a difference. In prints they like vivid colors, the brighter the better, particularly yellows and reds."

GEORGE W. BRYAN, for a number of years manager of the Fifteenths-treet mills of the Oliver Iron & Steel Co.,

Wks.

ks.

ct'y

&c

An Immense Lumber Contract.

What is said to be probably one of the largest single lumber contracts ever made was closed last week between the Reliance Lumber Co., of Beaumont, Texas, and the company which is to build the railroad from Omaha, Neb., to Galveston, recently reported in the MANU-FACTURERS' RECORD. This enormous contract, it is said, amounts to between \$800,000 and \$1,000,000, and is for the supply of all the ties, bridge timber and all other lumber. including depots, section houses and stock-pens for the construction of road from Omaha to Galveston.

A dispatch from Beaumont reports that the contract calls for about 100,000,000 feet of lumber, and that 10,000 to 12,000 cars will be required to transport it. The dispatch to the Houston Post also says:

The road will traverse the great grain fields of the Northwest, the rich mineral sections of the beau-rful Indian Territory, and through the great cotton belt of Texas to the proposed deep-water harbor at Galveston. Denison is the gateway to the State, and is to be the headquarters of the great system for Texas. In that city they propose to erect machine and repair shops and a roundhouse as large as any in the State.

The entire timber to be used in the construction of the road will be long-leaf yellow pine, and it will be one of the most substantially built roads in the United States.

Mr. Thomas A. Butler, a noted New York contractor, is to construct that part of the road lying between the Nebraska border and the Red river, including bridging, track-laying, ballasting, etc. Messrs. Robinson & Brinkley, of Easton, Mo., have a simular contract to cover all the territory from Red river to Galveston.

Work has already commenced on the northern division, and the line to Red river is to be completed before September 20, 1892.

Early in October the Reliance Lumber Co, will put eight or ten mills at work on the contract, as the material is to be shipped with the greatest possible dispatch. It is said that the Omaha, Kansas Central & Galveston will eventually be a continuation of the Chicago, Burlington & Quincy system.

PRESIDENT HARRISON and all the Capinet ministers have been invited to attend the exposition at Augusta. While no definite promise was given to the committee, they were made to feel that if the President could square his public duties with his inclinations the invitation would be accepted. The positive assurance that the President and Cabinet would inspect the exposition would be a great incentive to exhibitors, and would cause an immense attendance of Southern people. The President, Secretary Rusk and the Postmaster-General saw something of the South during their recent hasty journey across the Gulf States, but this exposition will enable them to see the people and their industrial products, as well as illustrations of their unrivalled and almost innumerable natural resources. The President and his advisers are men of logical minds who have manifested in many

ways their wish to understand the problems of the South. This exposition will shed some light upon them, and for that reason alone it will well repay these high officials to visit it.

AT its last regular session the Tennessee legislature appropriated \$5,000, the same to be expended in surveying a route for a canal that should connect the Tennessee and Mississippi rivers, and shorten by several hundred miles the distance between the iron and coal belts of North Alabama and East Tennessee and the cities of the lower Mississippi valley. Chief Engineer Jay J. Williams has made surveys of the best two routes, and has reported in favor of that via Forked Deer river. He estimates that the desired canal would cost about \$3,000,-000, and that if owned by the State it would yield an annual revenue from tolls of \$25,000. During the special session of the legislature now in progress this report will be considered in connection with a proposition to employ prison convicts on this public work.

THE Mountain Lake Land Co., of which A. E. Humphreys is president; Robert Ballard, vice president; J. D. Baines, secretary, and Frank Woodman, treasurer, met yesterday and declared a dividend of 4 per cent. on a capital stock of \$900,000. This company still owns 72,000 acres of the finest iron and timber land in the South, which they will begin to develop in the spring by the construction of a railroad from the Norfolk & Western up Big Sandy creek to a point near the Mountain Lake Hotel.—Charleston (W. Va.) Gazette.

The MANUFACTURERS' RECORD has often referred to the magnificent property owned by this company, which is steadily increasing in value. When the ten-mile road, for which surveys are being made, has been completed, enabling the company to develop its immense iron ore and timber resources, it ought to become one of the best dividend paying properties in the country.

ONE of the largest deals recently recorded is the purchase of a controlling interest in the stock of the Union Railway. of Chattanooga, by representatives of the East Tennessee, Virginia & Georgia Railroad, as reported in the MANUFACTURERS' RECORD last week. The Union, better known as the Belt Line, encircles Chattanooga with 45 miles of tracks, with switches for the accommodation of 95 industrial establishments. It is the longest railroad of its kind in this country, and probably in the world. Its daily traffic comprises the running of 120 suburban trains and of more than 100 freight cars. By this purchase the East Tennessee, Virginia & Georgia virtually becomes the railroad gatekeeper of the city, and will receive tribute from all or nearly all other systems entering there. In a New York special to the Chattanooga Times it is stated that a favorite scheme of the new owners is to locate a number of immense warehouses at Chattanooga. With the increased terminal facilities they have now obtained this scheme could be readily accomplished, and would unquestionably add largely to the railroad company's net

### BEST OUTLOOK IN IRON TRADE FOR TWO YEARS.

A Bright Prospect for the South.

Mr. Archer Brown, of the well-known pig-iron firm of Rogers, Brown & Co., was in Birmingham, Ala., last week, and in an interview in the Birmingham Herald on the industrial and financial situation, said:

"The general cu look in iron is more encouraging than it has been for two years. During all this period of hard times and low prices, it is remarkable that there has been little or no reduction of output of the furnaces, and no increase of stocks. This is true both South and North. In the Birmingham district production is now going on at the highest rate known, while prices are the lowest recorded. This convinces the outside world that the district is on a very sound basis, and will be an increasing factor in the iron world.

"Of course this would have been impossible if necessity had not taught economy. Pig iron is now being made lower here than was thought possible three years ago. Fuel has been improved and better furnace practice introduced; less low-grade iron is made, and the whole tendency has been towards better quality. Yes, the Southern irons now go everywhere. My firm sells almost as much to-day in the State of New York as it does in Ohio. In Canada there is a growing trade. Through the Central West it is now established as the basis of mixture for all foundry work and in most of the rolling mills. In Chicago, Cleveland, Buffalo, Pittsburg, etc., where it meets local furnaces making iron from lake ores, it is still needed in large quantities to mix with such irons to correct shrinkage, hardness, etc.

"Mr. Doepke, one of the large stock-holders of the reorganized pipe works at Anniston, is with me. We are both struck with the suppression of the boom spirit. Speculation seems to be stopped. This is very encouraging. What the people want to do down here now is to work and save. Let real estate alone for ten years and put in good licks in your furnaces, pipe works, rolling mills and other industries. Save the surplus earnings, stop paying interest, and in a few years the cry of tight money will be heard no more.

There is lots of money in the country. The largest bank in Cincinnati, of which I have knowledge as a director, has had the hardest kind of a time for six weeks past to find an outlet for its surplus. Anyone with good collateral can get money as cheap as at any time within five years. The only hesitation is on time loans, and this is through fear of silver legislation. If the Southern people will knock the free silver movement in the head, and make such legislation impossible, it will not be three months before money will be flowing this way again as freely as ever. Capital will not take bonds or invest in new enterprises while this cloud hangs over the future.

"As to the outlook in the pig-iron market, I feel certain we shall see improvement. It will come slowly, and I hope the advance will not be large. If it is, it will mean inevitable disaster a little later. At a dollar a ton advance there will be but little blowing in of idle furnaces and no building of new ones North. But two dollars would stimulate great activity everywhere, and a crop of new furnaces along the lakes would soon spring up. I am glad to see that the South realizes that the way to success is in low cost and high quality. That is a safe and sure platform. High prices are a vain delusion.

"I am glad to be able to say that Cincinnati is turning her attention to the South more to day than ever before. Our pipe company alone is spending over a quarter of a million dollars in Alabama

and Virginia. Several of the Alabama furnaces that have newly started have been assisted with Cincinnati money. Our people are very slow and conservative, but when they find that the boom business is over and things are down to the basis of steady, hard and profitable work on your splendid natural resources, there are millions of money in our town that will be glad to stop hunting for 4 per cent. ground rents and come down and join you."

### An English Opinion of the Norfolk & Western Railroad.

In referring to the visit of a number of prominent American railroad presidents to London, the Financial Times devotes considerable attention to President Kimball's work in building up the Norfolk & Western Railroad, "President Kimball," says the Times, "enjoys in an unusual degree the personal confidence and esteem of all the large holders of his stock with whom he comes into personal contact. They not only have great faith in his managem but they accept implicitly whatever he has to say about its position and prospects. When, as on the present occasion, he is sanguine and hopeful, they know he must have good reason for it. The Norfolk & Western, he thinks, has come wonderfully well through the slack period, which now appears to be drawing to an end. The latter was hard on the South, where the preceding boom had been most rampant. but the reaction has, in Virginia at least. been lighter than might have been expected. In the new towns buyers have paid their instalments and held on to their properties most creditably. The good crops, which imply active business by-andbve, have put fresh life and energy into them. During the coming year they may be as cheerful and lively again as they were in 1800. That portends a fine revival of local business for the Norfolk & Western. New settlers and new capital will begin to crowd in again and progress will resume its interrupted course.

"But it is through business that interests Mr. Kimball most just now. At last the Clinch Valley connection with the Louisville & Nashville has been got into operation, and it has made a very satisfactory start. A through service was not fully organized till the beginning of last month, but since that time the two roads have exchanged on an average nearly ninety cars per day. Most of them have been eastbound to Norfolk, and the only drawback of the service so far is that west-bound freight being scarce, the interchange has been rather one-sided. But all east and west roads have of late been making the same complaint-everything has been going East, and return freight to the West has been relatively small. In the new route via Clinch valley there are great future possibilities which, had they been hinted at a few years ago, would have been dismissed as dreams. President Kimball claims that he is now in a position to compete with the Northern trunk lines for almost any kind of export trade. He can give through rates on flour from Minneapolis, via Louisville and Norfolk, to any British port as low as they can be made via Chicago and New York or via the Soo and Montreal. He can in the same way through rate wheat or corn from St. Louis, Kansas City or any Western point. haul may in some cases be rather longer than by a Northern route, but as an offset to this freight can be handled decidedly sheaper at Norfolk than at Philadelphia or New York.

"The ample and well-planned shipping facilities provided by the Norfolk & Western Co. at Norfolk were recently described at length by our special correspondent. It will soon be seen now what they are worth in actual operation. All kinds of heavy freight-grain, cotton, coal and iron—they

are specially adapted for. It is expected that the coming season will bring a grand increase of cotton shipments. The Louisville & Nashville is a great cotton road, but hitherto it has got a very short haul on most of its cotton, owing to its chief outlet to the seaboard being by way of Cincinnati. Now, by turning it over to the Nor-folk & Western in the Clinch Valley it will get a longer haul for itself, and be able to do a good turn to its new ally. Out of Memphis alone it is said to take an average of 100,000 bales per annum, and if but one-half of this goes by the Ciinch Valley route it will give a start to Norfolk. Though the cotton crop is not actually out of danger, yet it was looking well at the date of Mr. Kimball's latest advices, and the South will not be far behind the North west in the great flush of prosperity which promises to sweep the country.

Our

ss is

is of

mil.

l be

ound

or-

ts to

con-

all's

stern

the

the

n he

nent.

has

ects.

ne is

must

fully

now

The

the

pant.

east.

have

their

and-

into

may

they

vival

will

will

the

ouis-

fully

onth,

cars

east-

ound

has

the

West

great

been

hall

nne-

any

Son

way

The

nger

edly

ia or

Vest-

ibed

orth

eavy

"Another point on which Mr. Kimball congratulates himself is that all the company's new building is being rapidly brought into small compass. The doubling of the track on the main line from Roanoke to Radford, and from Radford up the New River valley to the coal mines, has been completed so far as is necessary at present. The only extension of any magnitude now on hand is the Ohio River branch from Pocahontas up to Ironton. There the Ohio is to be crossed by a large bridge, of which the first span was swung a few days ago. This will loop on to the main system the Scioto Valley line running from the Ohio up to Columbus, and connecting with several roads leading to Cincinnati. It will be an event for the Norfolk & Western when it taps the Middle States and gets into the main stream of north and south traffic. That cannot now be far off, and in Mr. Kimball's opinion another year will bring it very close if not to actual realization. Then the Norfolk & Western will have a broad base to operate on. It will no longer, as in its early years, have to depend on one or two staple articles of freight. The whole Union east of the Mississippi, from Chicago to New Or-leans, will become tributary to its system."

ACCORDING to the New York Sun, there is a scheme well advanced toward completion that will be of much importance to all classes of Southern shippers. This is the establishment of a fast freight route to Boston. Freight cars arriving at the terminus of the Baltimore & Ohio Railroad on Staten Island will be run aboard steamers there and floated over to Bay Ridge, on Long Island, where they will be run upon the tracks of the Manhattan Beach Railroad, over which they will be drawn to Oyster Bay. There they will be run upon another ferryboat, floated to Wilson's Point and taken thence to Boston by the Housatonic and New England Railroads. Should this plan go into active operation, it would reduce the time now required for delivering Southern truck and fish in Boston and other New England markets, and would build up a lively trade between New England and the two Virginias.

IT is reported that a deal is now in progress, the papers having been already prepared, by which the Ohio River Rail-road will acquire C. P. Huntington's lines in Kentucky, including the Newport News & Mississippi Valley Co.—Rastern Divis-ion—and the Kentucky & South Atlantic and Ohio & Big Sandy Roads—208 miles of railway, having a traffic arrangement covering 100 miles additional, making a through line from Wheeling, W. Va., to Louisville, Ky., with a total mileage of 523 miles. The Newport News & Missis-sippi Valley Co. use the track of the Chespeake & Ohio between the west bank of the Big Sandy river and Huntington, and the Ohio River is now constructing a line between those points within 200 feet of the Chesapeake & Ohio tracks.

### FLORIDA PHOSPHATES.

sational Reports Lead to an Incipient Panie Among the Hard Rock Mining Companies - A Better Under-standing of the Situation Restores Confidence.

[Special Cor. MANUFACTURERS' RECORD.]

BARTOW, FLA., Sept. 19, 1891.

The past week has witnessed the first tremor of apprehension the phosphate in-terest of Florida has known in its history. This spasm of trepidation was confined to the miners of hard rock, and did not in the least affect the pebble phosphate companies, for it must be understood that these two classes of Florida phosphate are as distinct and unlike as are the bituminous and anthracite coals of Pennsylvania.

There is a steady demand for pebble phosphate, and it is nearly all sold in advance of production; but, as previously pointed out in this column of the MANU FACTURERS' RECORD, and for reasons then stated, the demand for hard rock, even when of higher grade, is somewhat limited. There is nothing in the present outlook, however, to discourage the hard rock people, and certainly nothing to inspire grave apprehensions for the future of the industry.

The whole scare seems to have originated in the discharge of 200 hands by the Dunnellon Phosphate Co., or perhaps in the sensational telegraphic dispatch announcing the fact which was sent from Gainesville to the Savannah (Ga.) Morning News.

According to that dispatch the hands had been discharged because the Dunnellon mines were not paying; the demand for the rock not being so great in Europe as heretofore; the price also being much lower, while freight rates had been advanced. It was also stated that several cargoes of phosphate that had been sent to Europe had been rejected. "Mr. Bailey, the lessee of the State convicts, who had just returned from Europe, had large shipments from his own mines rejected."

The Savannah Morning News of the 18th says: "While rumors of trouble with respect to the rock phosphate have been heard, the demand for the pebble phosphate has been, it is stated, very steady. In view of the fact that the rock phosphate contains a higher per cent. of phosphate than the pebble phosphate, it would seem as if the former would be preferred to the latter, but the reason it is not is that the pebble phosphate is much freer from im-purities. \* \* \* In a short time, however, the mining companies will find out how they must treat the rock to make it acceptable, and, complying with the necessary requirements, they will have no fursary requirements, they will have no rur-ther trouble in finding a profitable market for all their product. It is nonsense to even suppose that the supply of phosphate now exceeds the demand."

Such a supposition would be nonsensical indeed. Some cargoes of hard rock have been rejected on the other side of the ocean, but it was because it was such stuff as should never have been shipped. As every one should know by this time, hard rock phosphate is exceedingly variable in quality, and two specimens, the one of high grade and the other of no value, may resemble each other so closely that only an expert can distinguish them. Those who engage in mining such rock, with no prac-tical knowledge of the business, must learn from experience that "all is not gold that glitters.

But companies owning good deposits of hard rock have no cause for alarm. Work has been discontinued at one or two mines, but there may have been reasons for this outside of the present depression in the An Ocala telegram to the Times-Union, of Jacksonville, shows that confidence is being restored throughout that district. It reads as follows

"While it is true that the Dunnellon Co. has discharged 200 hands, the productive capacity of the mine will be more than doubled by machinery. Then the discharged men were instantly hired by the Crown & Crescent, International and Hartshorn Companies.

"The price of phosphate is maintained. The Ocala & Blue River Phosphate Co. has made a contract recently with English parties to deliver 20,000 tons of rock at Fernandina at stiff prices during the present year."

The Marion Phosphate Co., according to the Inverness Phosphate Field, has exhausted its mines, and the total output was only 4,000 tons. The company owned 160 acres of land, and such a result must have been far from satisfactory; yet the manager, perhaps, did not expect much, as the Field says he had located every "pocket" on the tract before he began operations. Two acres of fairly good phosphate land will yield as much as that company obtained from its 160 acres, and in some instances a single acre has made a much

### One-Half of the World's Railroad Mileage in the United States.

better output.

The United States has nearly one-half of the total railroad mileage of the world. According to the Bulletin of the Iron & Steel Association, there were at the close of 1889 161,356 miles in the United States, 36,187 miles for the remainder of the American continent, 136,859 miles for Euope, 19 277 miles for Asia, 5,365 miles for Africa and 11,136 miles for Australia, a total for the whole world of 370,180 miles.

Statistics showing the proportion of track laid with steel rails to that laid with iron rails are not available for foreign roads, but Poor's Manual furnishes a table showing this proportion for the United States for each year since 1880, which is as follows:

1011011-				-
	Miles of	Miles of	Total	Por cent.
Years, s		iron rails.	miles. s	teel of total
1880		81,967	115,647	29.1
1881	49,063	81,473	130,536	37.5
1882	66,691	74,869	140,960	47-3
1883	78,491	70,692	149, 183	52 7
1884	90,243	66,254	156,497	57.6
1885		62,495	160,597	61.0
1886	105,724	62,324	168,048	62 9
1887	125.459	59 568	185,047	67 7
1888	138,516	52,981	191,497	72.3
1889	151,723	50,513	202,236	75.0
1890	167,606	40,697	208,303	80.4

In the above figures of course all tracks are included. It will be noticed that in the decade covered by the table, while the mileage of iron rails has decreased by half, the steel-rail mileage has increased fivefold, until at the present time over 80 per cent. of our railroad tracks are laid with the steel rail.

# Great Lumber Mill in a Great Lumber Region.

West Virginia & Pittsburgh R. R. Co. PARKERSBURG, W. VA., Sept. 19, 1891. Editor Manufacturers' Record:

The West Virginia & Pittsburgh Boom & Lumber Co. is a corporation in connection with the West Virginia & Pittsburgh Railroad Co. for the erection of a lumber plant on the Gauley river with a capacity to manufacture 50,000,000 feet of lumber yearly. The work is now in progress, and a large portion of the machinery has been contracted for from Sterns Manufacturing Co., of Erie. The plant will be supplied from the largest timber area in this section of the country. There is an unbroken forest of 500 square miles of territory Gauley river and its tributaries thickly covered with poplar, oak, cherry, ash, birch, together with large areas of spruce, which will be opened up by the West Vir-London market values of such goods. ginia & Pittsburgh Railroad Co., and tributary to the Gauley plant now being erected. J. N. CAMDEN, Prest.

### GENERAL NOTES.

THE Texas Tram & Lumber Co., Beaumont, Texas, is utilizing its slabs instead of burning them. It has placed in its mills machinery for making barrel heads and staves, for which the slabs afford the materials. A contract has been made with Kansas salt-makers for their entire output for a year, and they are now shipping car-loads of shooks to be made into salt barrels in Kansas.

THE Santee Cypress & Lumber Co. is a corporation of Chicago capitalists and lumber dealers, which has \$300,000 invested in lands and plant in South Carolina. This company owns about 17,000 acres of land in the immediate vicinity of Furguson. It ships daily from 80,000 to 90,000 feet of lumber, principally cypress, to New England, the Middle States and Chicago. It also handles a great deal of ash, gum and cottonwood. Its mill is equipped with two gang-saws, and has a daily capacity of 50,000 feet of lumber. It does also a large business in cypress shingles, some made by machinery, others by hand. This company employs about 200 adults, most of whom are whites.

A REPORT is credited at Galveston, Texas, that work will soon begin on the Corpus Christi & South American Railread, which is to be built from the latter city to Brownsville. The mills at Beaumont have, it is claimed, taken contracts to furnish 18,000,000 feet of lumber and timber to that milroad.

RAISINS have been produced at New Berne, N. C., by Mr. Robert Berry, whom the Journal of that city speaks of as "a great searcher after hidden truth." Mr. Berry was a volunteer officer of the United States navy, and as such took part in the combined land and naval attack in 1862 that resulted in the capture of that beauti-ful "Elm City" of the South. With an assured faith in the ultimate bringing back of the South into the renewed and "more perfect" union contemplated by the fathers of the republic, Mr. Berry, seeing the large epportunities open to New Berne, determined to cast his fortunes with that city. In pursuance of that determina-tion he resigned his commission in the United States navy and opened a business house in New Berne. He studied the resources of the country with a shrewd eye to the future. He was one of the first of the people there, peace having been re-established, to see that the agricultural wealth of that region consisted largely in the development of the socalled trucking business, and that next to that, but of equal importance, was the development on a large scale of viticulture. Through all the years of misfor-tune and fortune that have attended the horticulturists of the lower sound counties of North Carolina, this man, Doctor Berry, has held fast to his faith and has pursued his experiments. As a result of these he has now in bearing a vine from which he has by evaporation produced large, fine, well-flavored raisins, and he believes that a field cultivated for this purpose would be remunerative, even in the poorest seasons, and that in the best years it would yield an immense revenue. The New Berne Journai further says: "Mr. Berry tells us that a grape which will make excellent raisins in one locality may not do so in another, but that soil and climate have to be taken into consideration and varieties secured adapted to them. Probably the only reason why North Carolina is not a raisin-producing State is because no efforts have been made in that direction. Mr. Berry's are the first, so far as we know, in the State, and if they result in permanent success, as there is reason to believe they will, it adds anotherhighly profitable product to those of which the State could already boast. Further developments will be awaited with interest." The MANUFACTURERS' RECORD knows no good reason why North Carolina should not produce as fine raisins as California, and therefore it calls attention to Mr. Berry's experiments.

THE sale of 642 head of fat Durham beeves for the British market was made last week at Paris, Ky., from the famous 3,000-acre stock farm of Mr. C. Alexander. The purchaser, Mr. M. Goldsmith, of New York, thought the price asked for the herd, \$62,000, was too high, and went out to inspect them. He found them weighing an average of 1,850 pounds, and so nearly alike that there was no choice between them. Mr. Goldsmith closed the bargain at once. Last year he bought at the same farm cattle for his English customers to the extent of \$60,000, and he has been notified by cable this season that they must have Alexander cattle for the Christmas market. The famous "roast beef of old England" is now a product of the bluegrass lands of Kentucky instead of the lush pastures of the United Kingdom.

The Beaumont (Texas) Furniture & Art Wood Manufacturing Co. commenced operations the first of this month. In the main factory are 26 woodworking machines and in the finishing department there are others. The company's dry-kiln was started some weeks earlier, and a large stock of dried ash, oak, gum, magnolia, beech and other hardwoods was accumulated. The capital was subscribed by local shareholders. The officers are: President, John N. Gilbert; vice-president, Thomas H. Langham; secretary, W. C. Averill; general manager, G. A Van Buskirk.

.

EXPERIMENTS have been made at Rockford, Ill., to determine whether yellow pine
could be used instead of hickory or ash for
the poles, frames and whiffletrees of agricultural machines and implements. About
the strength there was no question, but the
difficulty was to make the yellow pine hold
paint. Experiments in kiln-drying the
wood have resulted in ascertaining that by
that treatment the pitch is "set" and the
life of it is killed, after which the surface
will hold paint as well as any other wood.

THE cotton crop of Texas, as estimated by the Dallas News in its issue of the 16th inst., will show a considerable falling off from last year. Its report compiles facts gathered from 321 neighborhoods in 134 counties, and covers the entire area of cotton production for the State. The plant has been damaged over 24 per cent. by drought, worm and rust since the last report.

.

A CHARTER was granted last week by Judge Brooke, of the Corporation Court of Norfolk, Va., for a company to be known as the Norfolk & Portsmouth Cotton Terminal Co. It is empowered to conduct a general warehouse, storage, cotton-yard, cotton-pressing, dock, elevator, wharf lighterage business, and may hold in Virginia not exceeding 500 acres of land. The capital stock is to be not less than \$50,000 nor more than \$500,000, in shares of \$100 each. The principal office is to be in Norfolk, with the right to establish branch offices in Portsmouth and Norfolk county. There are also ample powers for constructing whatever buildings, tracks and other facilities the business may re quire, and to connect all their plant with any transportation company chartered under the laws of Virginia. The officers of the company for the first year are to be as follows: President, C. G. Elliott, of Antok; vice-president, Legh R. Watts, o Paramouth; boart of directors, John an and II. Walters, of Baltimore; W. G. Elliott, of Wilmington, N. C.; Legh R. Watts, of Portsmouth; C. G. Elliott, C. W. Grandy and John N. Vaughn, of Norfolk. Messrs. M. L. Eure, J. C. Everett, W. D. Roundtree and J. W. Perry, of Norfolk, are also among the incorporators. It is said that this company is the realization of a plan which the Seaboard & Roanoke and the Norfolk & Carolina Railroads have had for some time under advisement, and that a large cotton warehouse and other terminal facilities will be constructed on Scott's creek in the rear of the United States naval hospital.

THE Monarch Gold Mining Co., organized at Knoxville, Tenn., December 3, 1890, bought more than 700 acres of land in Rutherford county, N C., about two miles from Millwood, a station on the Three Cs Railroad. Since then the property has been carefully prospected, and 13 distinct veins of ore have been found. Recently a five-stamp mill was put up, and within a fortnight the first run was made. From 20 tons of rock 217 pennyweights of gold were obtained, worth \$203.98.

OWING to some misunderstanding as to the date, the interstate convention of cotton growers that met at Atlanta last week had but two delegates from other States than Georgia. After consultation it was decided to issue a formal call for a general convention to assemble at Atlanta on Tuesday, October 29th. Topics for discussion at that meeting were announced. A resolution offered by Col. Livingston was adopted looking to the establishment of direct trade. It was as follows: Whereas, the commission appointed by the different State alliances in the cotton States having been satisfied that many arrangements can now be made with foreign cotton consumers and manufac urers for the direct sale of cotton to exporters; therefore, be it resolved, that we recommend the sale of cotton to exporters under such regulations as may be agreed upon between exporters and the conmission." Those present were much interested in King's patented cotton bale cover, which, it is claimed, is fire-proof. The inventor was asked to prepare a paper to he read at the October meeting, in which the superiority of this new covering should be shown.

THE prosperity of Macon, Ga., is built upon such a solid foundation that all the financial troubles of the past twelve months have not reduced the value of real estate in and around that city. Some investors, expecting that there would be a considerable decline, have been waiting for its occurrence, that they might buy largely, and then take advantage of the reaction better times were sure to bring. They have waited in vain, and are now improving whatever chances offer, feeling sure that there will be a handsome increase of values during the coming winter. Such, in brief, is the testimony of all the real estate operators of that city, as reported by the Macon Telegraph.

YORK COUNTY (Pa.) capitalists are reported to have invested nearly \$50,000 in property in and around Roanoke last week.

THE petition to appoint a receiver for the Kensington Land Co., of Georgia, male some time ago, has been received by the court, the company having shown that it had sufficient assets to pay off its indebtedness, and that it would shortly be able to meet all claims against it.

THE shipping records of Charlotte Harbor, Fla, show that during the 15 months ending July 1, 1891, an export of 32,325 tons of phosphate rock was registered. Twenty-seven large companies were the shippers. The terminal ports were Baltimore, Mobile. New Orleans and New York in this country; London and Newcastle. Expland; Hamburg. Dantzic and Science Germany, and Hamburg, Sweden.

### WINSTON-SALEM MATTERS.

Evidences of an Unprecedented Fall Activity in the Twin Cities.

Factories Running to Full Capacity— New Industries Being Located— Development Work of the Land Companies—Notes of News,

[Special Cor. Manufacturers' Record.]

North Carolina Headquarters

of the Manufacturers' Record,
Winston-Salem, N.C., Sept. 21, 1891.

Having recently returned from a trip which included most of the important cities and towns of North Carolina, as well as some of the most pretentious cities of the entire South, I am probably qualified to say that there is at least relatively as activity and development work every material way now going forward in Winston-Salem as in any point in the South, and the indications for a period of really remarkable advancement this fall could hardly be more promising. The 50 tobacco factories are running to their full capacity; many of them have orders ahead for nearly all the year's product; new factories are being built, and with the excellent new tobacco crop of Western North Carolina it is likely that the coming season will show an increase of more than a million dollars in the value of this one product. Other industries of various kinds adapted to the materials here at hand are being negotiated for, and some are under contract, so that the twin cities' reputation as a manufacturing center is certain to increase continually beyond the present remarkable point of one factory for every 114

There has been activity in real estate here throughout the summer, also not of a speculative kind, but of the more satisfactory and permanent description, in which lots are bought to build on and to utilize. When the land companies were organized here some months ago they went in simply to "fill a long-felt want"—to sell lots as a merchant sells goods-and that they have been successful in this line certainly speaks volumes for the legitimate expan sion and permanent upbuilding of the city. Street-car lines afford transportation to all the additions put on the market. Many have electric-light and water privileges. Miles of streets have been macadamized. and new buildings dot over the properties of every company which has offered its holdings to the public. There has been very little speculation pure and simple, but there have been continued advances in realty prices, and figures are not now as high as those which prevail in almost every growing, thriving city of even more than 16,000 people anywhere in the country. The highest price ever paid for business property here is \$325, and residence property ranges in price from \$35 down to \$2 per foot, according to location. The increase in taxable valuation, more than \$1,000,000 over that of the preceding year, gives a very clear idea of the growth which being enjoyed by this livest of North Carolina cities.

In a building way the activity is likewise very important. Probably \$1,500,000 will not cover the value of the new buildings under way, among which are a handsome municipal building, the First National Bank building, the R. J. Reynolds & Co. tobacco factory, Brown Bros.' new tobacco factory, the Hotel Zinzendorf and many other business and residence houses of more or less pretension.

To indicate in a concise way a history of the city and its progress during the year, I will soon present in the columns of the MANUFACTURERS' RECORD a list of pithy, eloquent facts, facts which will be read with interest by many, and which may be studied with profit by all who contemplate removal to the South and are in search of a point where healthfulness and salubrity, society and refinement are combined with resistless energy, push and enterprise in such a degree as to absolutely insure a large increase in population, enhancement in real estate values and steady growth in business requirements and commercial importance.

ALBERT PHENIS.

### Notes from Norfolk.

NORFOLK, VA., Sept. 19, 1891.

A charter has been granted to the Norfolk & Portsmouth Cotton Co. This company is organized for the purpose of conducting a general warehouse, storage, cotton-yard, cotton-pressing, dock, elevator, wharf and lighterage business, and may hold in Virginia not exceeding 500 acres of land. The capital stock is to be not less than \$50,000 nor more than \$500,000, in shares of \$100 each. The principal offices will be in Norfolk, with the privilege of establishing offices in Portsmouth and Norfolk county. C. G. Elliott, of Norfolk in president of the company. A large warehouse and other terminal facilities are promised in the near future.

The demand for residences remains unsupplied. The serious attention of capitalists at home and abroad has been directed to the need for houses here, and while many houses are being built, they will fall far short of supplying the wants of a rapidly increasing population. It is a matter of wonder that monied men do not see this opportunity for a most advantageous investment. New streets are being opened in the best residence portion of the city, and new houses would be in keeping with the progress of the city.

The Landmark will shortly issue a pamphlet containing much information about the Norfolk & Southern Railroad and its commercial tributaries. It will be a carefully wrought picture and narrative of the physical and natural appearances of the territory traversed, and will contain much information about the resources and advantages of Norfolk, the railroad and the Albemarle section.

The Middle States Loan, Building & Construction Co., of Hagerstown, Md., has established a branch office here.

Work will soon commence on the foundation of a new building to be erected on the site of the old storage warehouse on Water street. The new building will be better and more expensive than its predecessor.

The cotton compress will soon be running day and night.

A sewerage company has been organized in Portsmouth.

In a few days work will commence on several buildings to be erected on the sites of those destroyed by the recent great fire.

THE MANUFACTURERS' RECORD has sent to London a member of its staff for the purpose of establishing an office there. This step has been taken on account of the great interest that is being manifested in England in Southern investments, and it is expected to do the South an immense amount of good. Southern resources will be advertised in England as they have never been before, and it is probable that more foreign capital will come to the South than the best years of the past have brought. The MANUFACTURERS' RECORD is doing a splendid work for the South and our people ought to appreciate it, and they do.-Jacksonville (Fla.) Standard.

VALUABLE PROPERTIES of all descriptions for sale in the growing city of

### WINSTON-SALEM, N. C.

5 miles Electric Street Railroad. 119 Factories. Population 1883, 4,194. Population 1890, 16,471. Tobacco Center. Railroad Center. Paved Streets. The Future Metropolis of the South.

P. C. HUMPHREY, Beal Estate Agent,



The "LOWELL OF THE SOUTH"

# Augusta, Georgia

TO MANUFACTURERS



# The AUGUSTA EXPOSITION,

1891. to 28th. November 2d

AND CALLS ATTENTION TO THE FOLLOWING FACTS:

factures. She will be the HEADQUARTERS of Southern manufactures. She has long been the LARGEST COTTON MANUFACTURING CITY in the South, and will lead in the manufacture of other articles.

She is the best railroad and distributing point in the Southeast. She has the best map position of any Southern city, standing on trunk lines to the West and between the North and the extreme South, in access to the Atlantic ocean. She is at the HEAD OF STEAM NAVIGATION of the SAVANNAH RIVER, open to the sea, and is the best point relative to Northern, Western and Southern home, and Southeastern foreign, markets, lying in a Southern direction. Her railroad facilities are provided, and her river insures her low freight rates for all time; as, for instance, her rate on Eastern freights is 18 cents lower than either Macon's or Atlanta's, and only 2 cents more than Atlanta's on freights from the West.

Augusta is a rapidly growing city, though one of the oldest in all kinds.

Augusta is the best point in the South at which to establish manu | the South, and is equipped with every need and convenience of a great city. She has the finest canal water-power in the South, and much of this power is yet unused for day and night use. There are openings in Augusta at the present time for many million dollars of manufactures to supply the city and direct territorial trade alone, which manufactures are now being bought elsewhere. Notably are there openings for manufactories in hardwoods into all shapes, including, first, furniture; then wagons and carriages; farm implements and tools; barrels, buckets, trays, churns and dairy utensils and fruit crates. Candy and cracker manufactories are wanted; factories for making crockery from kaolin; tile and terra cotta; firebrick from fire-brick clay; pressed brick, glass from superior sand, and manufactories of cotton mill supplies and agricultural implements. Canning factories are needed; tanneries, shoe, hosiery, clothing, hats and underwear factories, besides many others.

Augusta invites the establishment of large and small factories of

### FACTS ABOUT AUGUSTA

Augusta's total debt is only \$1.744.800.

Augus a has \$6,000,000 in cotton factories.

Augusta's assessed value of property is \$1.300,000.

Augusta sassets in canal and water works are \$2.007,000.

Augusta has a permanent Exposition.

Augusta's revenue from her canal is \$80,000 per annum.

Augusta's increase in property from 1880 to 1891 was \$9,000,000.

Augusta rents canal water-power cheaply at \$5.50 per horsever per annum.

Augusta rents canal water-power cheaply at \$5.50 per norsewer per annum.

Augusta has seven banks, with a capital of \$2,700,000.

Augusta's tributary population is 1,000,000.

Augusta's number of new buildings erected in 1890 was 600.

Augusta has one of the best public school systems to be found
the South anywhere.

Augusta's cotton receipts will number this year 275,000 bales.

Augusta is the largest cotton manufacturing city in the South.

Augusta is the largest cotton manufacturing city in the South.

Augusta has 23 miles of electric railway, with two more lines

ilding. Augusta has one permanent Carnival Association,

ding in January of every year, and drawing this year 70,000

iltors.

visitors.

Augusta has seven steam railroads, four more building, and has nine direct branch roads.

Augusta is the center of the most vital and far-reaching systems of railroads in the South.

Augusta is the the bead of steam navigation of the Savannah River, in access to the sea, insuring her low freights for all time.

Augusta is in the center of the richest agricultural region of the Southeast.

Southeast, Augusta is the best cotton market in the South, and also the estinland co ton market in the United States, except Memphis. Augusta has a population of 45,000 (including suburbs), which

is larger than that of Chattanooga, Little Rock, Knoxville or |

Birmingham.
Augusta is the Largest Lumber Manupacturing City in
Georgia, which means the largest in many States.
Augusta has in her surrounding territory, for furniture and
other woodworking manufactories, the following hardwoods:
oaks, hickories, ashes, maple, poplar, cedar, cypress, wainut
sassafras and tupelo and other gums.

oaks, hickories, ashes, maple, poplar, cedar, cypress, walnut sassafras and tupelo and other gums.

Augusta is in the midst of vast beds of kaolin, fire-brick clav and other clays, ochre, superior glass sand and granite, and marble, copper, iron and coal are line asy access.

Augusta in addition to cotton fact-ries, has foundries, rail-road and other machine shops, car works, four mills, grist mills, cottonseed oil mills, lumber manufactories, brick works, ice factories, gas and electric light and power plants, fertilizer factories, a cotton compress, a pine fibre and soap factory, a brewery, a glass factory, a paper mill, besides many smaller industries. But these do not meet the trade, and can be profitably repeated many times, while there is need at the same time for many entirely new industries.

Augusta has churches, clubs, asylums, hospitals colleges and various homes, public libraries, parks, theatres, a cotton Exchange, besides other exchanges, city and gover-ment public buildings, wealthy home insurance companies, and building and loan associations, and other extablishments of a large and wealthy city, together with beautiful and elevated suburbs. The city of Augusta is one of the best planued cities in any country, being level as a die, lying beside a river, with broad and shaded streets, straight as arrows, intersecting at right angles, and disappearing in vistas. Augusta is cool and fresh the year round.

for she is in the track of the winter hotels, and has sominest hotels and suburbs of the resort character in the S country. Notably among the hotels is the "Bon Air." The hotel resort, Aiken, S. C., is only 15 miles d-stant. August from all malarias, and is dry and healthful. Her residere residence streets and suburbs are noted in Georgia f excellence and beauty, and Richmond County, in which is situated, has the reputation in Georgia of having the lem of public roads in the State.

The Gilowing is the Chronicle's report of Augusta.

The following is the Chronicle's report of Augusta's trade during 1890, which is a convincing argument of the solid com-

in growth of the city :	
Cotton, 204,000 bales	\$10,000,000
Cotton manufactures	6,000,000
Groceries, provisions-wholesale and retail	
Liquors, tobacco and cigars	2,150,000
Commercial fertilizers	2 000 000
Miscellaneous manufactures	5.550 000
Dry goods and clothing	
Boots, shoes and hats	1,200,000
Wagons and Carriages	750.000
Horses, mules, &c	500,000
Furniture and carpets	300,000
Drugs, oils and paints	500,000
Miscellaneous retail trade	5,650,000
Lumber, sash, doors, &c	750,000

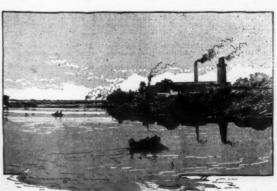
Study the above and see what may be profitably manufactured

new industry.

In conclusion, addressing the world at large, it is wished to say: In view of Augusta's present commercial and manufacturing importance, there are few cities anywhere that offer so much to additional

Augusta is growing, and growing fast, and will welcome every establishments in the LARGE WHOLESALE AND JOBBING TRADE as Augusta.

Any further information will be cheerfully given by any of the following parties:



THE RIVER FROM NORTH AUGUSTA BRIDGE.

PATRICK WALSH, President Augusta Fanosition.

D. B. DYER, President Augusta Ry. Co.
E. J. O'CONNOE. President Murray Hill
Improvement Co.

Improvement Co.

JAMES U. JACKSON, Manager North
Augusta Land Co.

J. H. ALEXANDER. President Alexande. S. ed & Drug Co.

C. V. WALKEH, President Augusta Real
Estate Exchange.

W. C. JONES, Scoretary Augusta R al
Esta e & Improvement Co.

C. R. OOFFIN, President Mutual Real EsLite & Building Association.

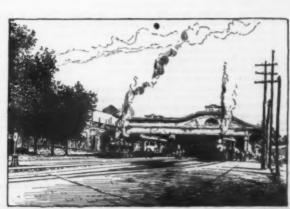
A. J. GOULHY, President Irish-American
Investment Co.

JAS. L. FLEMING, President Augusta

JAS. L. FLEMING, President Augusta Real Estate & Investment Co.

W. C. JONES, Secretary Augusta & Sum-merville Land Co.

BOYKIN WRIGHT, President Druid Park



UNION RAILWAY STATION.

### NORFOLK, VA.

### THE GREAT SOUTHERN SEAPORT.

Attention of manufacturers and others seeking investment or establishment in the South is called to the following facts:

Norfolk has the most magnificent natural harbor of the Atlantic Coast, having no bar to block its entrance, being within 23 miles of the ocean, sheltered from all vicissitudes of weather, always free from ice, with sufficient depth of water for the deepest draft vessels.

Hampton Roads, at the confluence of the James and Elizabeth rivers with the Chesapeake bay, is easy of access, navigable for vessels of any size or draft.

It has been designated by Congress as the rendezvous for the navies of the world in 1892-'93.

A 26-foot channel, well marked with buoys and light houses, leads to the wharves of Norfolk, and above the city to the Navy-yard.

Seven broad-gauge and two narrow-gauge railroads, controlling an aggregate of over 17,000

Seven broad-gauge and two narrow-gauge railroads, controlling an aggregate of over 17,000 miles, put Norfolk in connection with all the points reached by railroads in this country, and two

The water supply is derived rom large lakes of spring water seven miles distant, good not only for household use, but admirably adapted for manufacturing purposes, being absolutely free from all those substances that corrode boilers.

The climate, tempered by the proximity of the Gulf Stream, is mild. There is hardly ever ice or snow to interfere with out-door work or exercise.

The city is lighted with electric lights, and has as fine a fire and police department as any in the

snow to interfere with out-oof work of exercises.

The city is lighted with electric lights, and has as fine a fire and police department as any in the country.

All denominations are well represented in churches.

There are two good hospitals, one in charge of the Sisters of Charity, and the other under the Protestant organization of the city.

Educational advantages are excellent, there being a thorough system of public schools, together with numerous pr. vate seminaries for both sexes.

There are two good theatres, at which the best companies stop on their pilgrimages from the North to the South.

This is one of the largest pine lumber markets in the South; 350,000,000 feet were shipped in 1890.

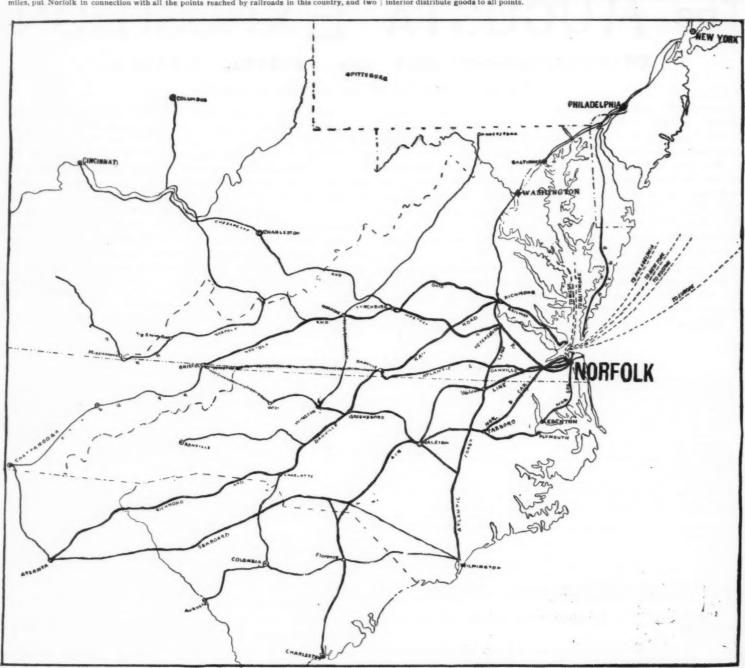
The best bituminous coal and coke are supplied by the C. & O. R. R. and N. & W. R. R.

Pig iron is delivered here by these two railroads.

Rolled iron and all of its products can be promptly and cheaply freighted by water to all of the leading scaports.

600,000 bales of cotton are annually marketed here, which makes this the most desirable point for the manufacture of cotton goods in the United States, superior to inland towns throughout the cotton belt, because a factory located in these is dependent on the local product marked in three or four months, after which it has to draw from distant points or carry a sufficient stock for the year, or if the quality or grade in the locality is unsuitable, it is subjected to the extense of freight from distant points; but Norfolk being a large cotton market, not only furnishes an assortment of grades and quality, but enables the manufacturer to purchase his stock all the year

It is superior to other seaports from its accessibility to New York, Boston and other markets or such supplies as the manufacturer frequently needs on short notice, while its railroad lines to the interior distribute goods to all points.



nect with the Sounds through the Carolinas.

First-class steamship lines ply to Boston, Providence, New York, Philadelphia, Baltimore, Washington, Richmond and other points on the Coast and Sounds.

Norfolk is within 20 hours of Boston by rail and 40 by water.

12 hours of New York by rail and 21 by water.

15 hours of Baltimore by rail and 12 by water.

8 hours of Baltimore by rail and 12 by water.

7 hours of Washington by rail and 12 by water.

8 hours of Baltimore by rail and 12 by water.

7 hours of Richmond by rail and 12 by water.

2½ hours of Richmond by rail.

23 hours of Chicannati, and 34 hours of Chicago and St. Louis by rail.

A regular line of passenger and freight steamships ply to the Brazilian ports, and steamships, chartered mostly for the carriage of freight, ply to Liverpool and other European ports.

In 1883 the aggregate trade of Norfolk was placed at \$38,200.456, while five years later, in 1888, it had risen to \$55,011,656; in 1889 it increased to \$75,000,000, and in 1890 to \$100,000.000. The vessel tonnage of Norfolk in 1870 was 13,500 tons, cargoes valued at \$86,594; in 1886; it increased to 103,608 tons, valued at \$11,116,595; in 1887, 257,884 tons, valued at \$14,714,404; for the year 1890 the tonnage reached \$82,846, valued at \$15,197,095.

It will be bard to find a parallel case in this country in two decades showing an increase of tonnage from 13,502 tons in 1870, valued at \$15,697,095.

The population of Norfolk, including Portsmouth, Berkley and other bourbes, is 70,000; the increase within the city limits has been 61 per cent, in the last ten years.

This increase, with the growth of business and enhancement of value in property of all kinds, is turning the attention of capitalists and investors to this point.

The City of Norfolk has a complete system of sewerage and is well paved.

The healthfulness of the climate, as exhibited by the death rate, is not surpassed by any city in the country, the percentage being in 1890 16,90 to the 1,000.

In addition to the manufacture of cotton and iron, there is at Norfolk opportunity for profitable manufacture of furniture and all articles made of wood, such as ash, oak, pine, poplar cedar, cypress, juniper, gum, and for the manufacture of safes, stoves, hardware, sash, door and binds, etc.

The cost of labor ranges from \$1 to \$1.50 per day for unskilled men, and \$2 to \$5 for skilled men; females 50 cents to 75 cents a day unskilled, and 75 cents to \$2 a day for skilled; boys 33 cents to \$1 per day; girls 25 cents to \$1.20 per day.

The above quotation are for white labor.

Unskilled negro labor can be employed at 80 cents to \$1 for men and 50 cents for women.

Norfolk has been exempt from those labor troubles and strikes which have characterized Northern manufacturing cities.

The surrounding country being the great vegetable-growing section of the seaboard, and the rivers and bays being filled with the finest fish and oysters, make living cheap and healthy.

Although in banking facilities Norfolk is fairly well supplied, there being nine banks with an aggregate capital of about \$1,000,000 and aggregate deposits of about \$5,000,000, there is, however, a food opening for another bank.

No folk offers a field for the establishment of jobbing houses in dry goods, boots, shoes, hats, caps, notions, drugs, tinware and all other kinds, excepting wholesale g-oceries, in which she is well supplied.

caps, notions, drugs, tinware and an other kinds, excepting wholesate gloceries, in which sale is a the country lying to the southward west of Norfolk furnishes the markets to which goods from here are distributed in exchange for cotton, corn, wheat, peanuts and other crops.

The NORFOLK INDUSTRIAL DEVELOPMENT CO. has been organized for the purpose of furnishing information and assisting the establishment of manufacturing enterprises.

Free sites can be obtained on the railroad lines around the city, and reasonabe subsciptions will be made to the stock of manufacturing enterprises, provided they are meritorious, but no proposition will be entertained from any but bona fide concerns, using good machinery and stocked on a business-like basis.

Capital invested in machinery is exempted from taxation for ten years, and will probably always continue so.

tinue so. For further particulars, address WALTER F. IRVINE.

SECRETARY NORFOLK INDUSTRIAL DEVI

# AWRENCEBURG, TENN.

A Coming Residence and Industrial City, Educational Center and Health Resort.

Small Industries Wanted to Work Up Our Cheap and Splendid
TIMBERS AND PIG IRON.

No place like it for

FURNITURE FACTORIES,

CARRIAGE WORKS,

CARRIAGE AND WAGON TIMBERS,

AGRICULTURAL IMPLEMENT WORKS,

CHAIR FACTORY,

BARREL FACTORY,

TOOTHPICK FACTORY,

WOODEN PIPE FACTORY.

ANYTHING OF WOOD.

Or

MACHINE SHOP,

FOUNDRY.

Or ANYTHING OF IRON.

LAST WREE WE LOCATED A

## ROLLER PROCESS FLOUR MILL,

A GOOD WOODWORKING ESTABLISHMENT

Male and Female College.

### A CANNING ESTABLISHMENT

Is promised for next fall.

Every person who visits Lawrenceburg is impressed with advantages of its location.

Not a wheel has stopped during the recent hard times.

Our factories are all making money, and there is room for many more.

SMALL INDUSTRIES .- DIVERSIFIED INDUSTRIES, That Is What We Want.

Some Excellent Investments can be Made in Lawrence
County Timber and Mineral Lands.

ADDRESS

V. S. PEASE, Secretary,

Nashville, Tenn.

THE LAWRENCEBURG LAND & MINERAL CO.

Or Room 63, 185 Dearborn Street, CHICAGO, ILL.

LAWRENCEBURG, TENN.

# The Winston Land & Improvement Company.

Authorized Capital.

\$1,000,000.

Present Capital Stock \$125,000. All Subscribed and Paid Up.

### OFFICERS:

G. W. HINSHAW, President, of Hinshaw & Medearis, Wholesale Merchants; Vice-President People's National Bank, Winston, N. C.

DR. W. L. BROWN, Vice-President, of Brown Brothers, Tobacco Manufacturers,

W. F. TROGDON, Secretary and Treasurer, North Wilkesboro, N. C.

### BOARD OF DIRECTORS:

GEO. W. HINSHAW, Winston, N. C.

MAJ. CHANNING M. BOLTON, Chief Engineer Richmond & Danville Railroad. Washington, D. C.

P. H. HANES, of P. H. Hanes & Co., Tobacco Manufacturers, Winston, N. C. COL. J. M. WINSTEAD, Cashier Piedmont Bank, Greensboro, N. C., and President H. P. Scales Tobacco Co., Atlanta, Ga.

A. A. FINLEY, ESQ., Mayor of North Wilkesboro, N. C.

### ATTORNEYS:

T. B. FINLEY, ESQ., North Wilkesboro, N. C. HON. C. B. WATSON, Winston, N. C. HON. J. C. BUXTON, President First National Bank, Winston, N. C. HON. W. BARBER, Wilkesboro, N. C.

THE COMPANY OWNS THE NEW TOWNSITE OF

# PORTH WILKESBORO.

### NORTH CAROLINA,

Consisting of 1,036 acres, and also owns 4,100 acres of Mineral and Timber Lands in Wilkes County, which property is now being developed. Townsite purchased November 11, 1890. Property put on market at private sale and first lot sold May 12, 1891. North Wilkesboro chartered by the legislature March 4, 1891.

Forty-three buildings already on the townsite.

Already established, one large, handsome, well-furnished and well-kept Hotel; one Saw Mill, Planing Mill, Door and Sash Factory combined; two Saw and Planing Mills; two Brick-yards; one Tan-yard; one Newspaper, the "North Wi'kesboro Progress." Charter was obtained from the last General Assembly for the Bank of North Wilkesboro; the open for business as soon as the bank building can be completed; ten Stores and one large Livery Stable.

Ten miles of streets graded.

Manufacturing sites will be donated and stock subscribed to such legitimate enterprises as may be advantageously located here.

North Wilkesboro, 75 miles west of Winston-Salem, on the Northwestern North Carolina Railroad, is the most facturers, will do well to investigate North Wilkesboro's important trading point between Winston-Salem and Bristol, advantages.

Tenn., and is in the center of the great undeveloped mineral and timber district of Northwestern North Carolina, being by United States postal map, on an air line, 75 miles southeast of Bristol, Tenn., 45 miles east of Cranberry, N. C., 40 miles north of Statesville, 45 miles northeast of Hickory, 90 miles northeast of Asheville, 45 miles southwest of Mt. Airy, N. C., and 80 miles north of Norfolk & Western Railroad, in the capital stock, \$50,000, has been subscribed, and bank will Valley of the Yadkin, between the Bruohy mountains on the South and Blue Ridge on the north. The best located, watered and drained town in North Carolina.

Her climate is of unsurpassed salubrity and healthfulness. Fresh water and mineral springs abound, and the 328 miles of water courses in Wilkes County furnish a water power of almost incalculable magnitude.

Home seekers, health seekers, and wood and iron manu

PLATS, PRICES AND ANY DESIRED INFORMATION PROMPTLY FURNISHED ON APPLICATION TO

W. F. TROGDON, Secretary and Treasurer,

NORTH WILKESBORO, N. C.

ALEX. A. ARTHUR,

President.

FRANK WATTS,

Vice-President.

JOHN B. CARY, Secretary and Treasurer.

# The Middlesborough Town Company.

Capital - \$3,000,000.

OFFERS TO

Manufacturers, Merchants, Bankers, Investors,

AND TO ALL OTHERS SEEKING A LOCATION TO BUILD

Factories, Foundries, Stores, Warehouses, Repositories, &c.,

REASONABLE INDUCEMENTS TO SELECT

# Middlesborough, Ky.

AS A PLACE OF

### RESIDENCE OR FOR BUSINESS.

Her Mineral and Timber Wealth is Unbounded and Inexhaustible,

Her Location is Unequalled.

Her Climate is Unexcelled in this Country.

Her Growth and Marvellous Development Stand Unparalleled in History.

Her Industries, Manufactories and Commerce aggregate the sum of \$21,000,000 of Capital actually invested.

She Enjoys Postal, Telegraph, Express, Banking and Insurance Facilities with all the Business World.

She has easy Communication by Rail with all Sections of the Country.

She has better Coking Coal than can be found elsewhere.

She is only Two Years Old and already has a Population of 8,000 People.

She has already two large Iron Furnaces completed, an immense Steel Plant, a mammoth Tannery in operation, a Brewery, Cold Storage and Ice Manufacturing Plant, Gun and Heavy Ordnance Works, a Telephone System, a Belt Railroad twenty-three miles long, an Electric Street Car System, Water Works, Electric Lights and hundreds of smaller plants of every description.

FOR ILLUSTRATED BOOKS, CIRCULARS AND ALL OTHER INFORMATION, ADDRESS

JOHN M. BROOKS, - Resident Manager,

MIDDLESBOROUGH, KY.

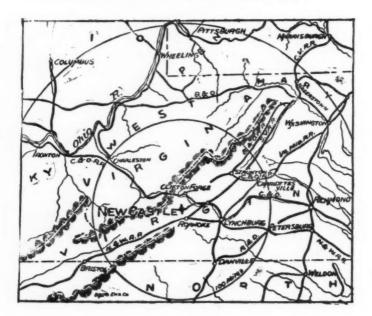
# NEW CASTLE, Craig VA.

# THE IRON BONANZA,

Convenient to Fuel Supply.

A City of Immense

Possibilities without
a Rival in all that
goes to Create
Wealth and Power.



A Home for Invalids
in which to
Lengthen out their
Lives, and for all
to be and Remain
Healthy & Happy.

PARADISE OF THE HUNTER AND HEALTH SEEKER.

Future City of the Alleghanies and Center of Iron Production.

Commodious Hotel for the Entertainment of Summer Guests.

2,000 TOWN LOTS FOR SALE.

FOR INFORMATION ADDRESS

A. E HUMPHREYS, Prest., New Castle, Va.

# -: ALL EYES ARE UPON :-

# NEWPORT NEWS.

Unequalled Natural Advantages and Unlimited Capital Combined for the Upbuilding of a Great Seaport City.

# THE NEWPORT NEWS COMPANY,

Having acquired a large body of land—the best in the entire Newport News section—and having platted the same, now offers for sale at moderate prices and on easy terms

# Choice Villa Sites 🐼 Building Lots,

Which will be made readily accessible by the completion of the electric railway between Newport News, Hampton and Old Point.

This property is situated on a plateau tooking out upon Hampton Roads, one of the finest harbors in the world.

It is only a few minutes' ride from the business center of Newport News, whose wonderful and substantial growth is attracting world-wide attention.



## BUY LOTS AT FIRST PRICES.

PRICE-LIST FURNISHED ON APPLICATION.

L. P. ROUTT, - - General Agent, - - Richmond, Va.

# ELKTON, VIRGINIA.

## IN THE WORLD-FAMED SHENANDOAH VALLEY.

Presents to-day the Best Opportunities for Safe and Profitable Investments to be Found in Virginia.

In one short year it has grown from a mere hamlet to a town of nearly 900 souls.

When factories now in course of construction are all in operation, at least 1,200 people will have their homes in Elkton.

Our industries are numerous and varied.

We do not depend on any one big concern to make or break us.

The immense TIMBER SUPPLY gives employment to a number of Saw Mills and Planing Mills and Lumber Vards

We have also a Sash, Door and Blind Factory,

A Steam Bark Mill (under construction),

A New Roller Mill, 100 barrels daily capacity,

A Large Tannery,

Steam Brick Works,

A Cannery (contracted for),

Wagon and Spoke Factory (under construction),

A Large Cutlery Factory, nearly completed, which will employ at least 50 hands, and which will begin work in June.

Besides, are the various minor industries to be found in every town, such as Blacksmith, Harness, Wheelwright, Carpenter, Cabinet Makers, Tinners, Plumbers, Etc., Etc.

A Water Company supplies pure Lithia Water through a complete system of pipes to all residences and stores desiring it.

### RATES:

For Single Days. . . \$2 to \$3 Weekly Rates, . . \$9 to \$15 Monthly Rates, . . \$25 to \$50 Special Rates to Ministers.



Rooms May be Engaged and Prices Fixed by Applying to

C. P. WALTERMIRE, Manager.

June 22, 1891.

The Finest Hotel in Virginia, "THE ELKTON," is here. Run under the management of the Elkton Improvement Company.

Lighted by gas, supplied with pure lithia water in unlimited quantity, and with all modern conveniencies.

Investors will find our property priced so as to insure profits.

NO FANCY PRICES have been asked, but values will be confined to ACTUAL WORTH.

We invite Investors, Home Seekers, Tourists, Business Men, Manufacturers, small and great, to COME TO ELKTON.

FOR PARTICULARS ADDRESS

## THE ELKTON IMPROVEMENT COMPANY,

S. P. H. MILLER, Presiden'.

S. O. SPENOFR, General Manager.

THOMAS K. HARRSBERGER, Secretary & Treasurer.

# As A LOCATION for Manufactures

Of Iron and Wood and for General Industrial and Business Enterprises,

# FRONT ROYAL, VA.

INVITES INVESTIGATION.

Its location, at the junction of the Norfolk & Western Railroad (Shenandoah Valley line) and the Richmond & Danville's branch, give it excellent transportation facilities. It is only a few hours' ride distant from Washington.

The Norfolk & Western's direct line to Washington will be built from Front Royal.

There is no Finer Agricultural Country in the World than the Famed Shenandoah Valley, in which Front Royal is Located.

A WIDE RIVER WITH SWIFT CURRENT FURNISHES WATER POWER AND MAKES DRAINAGE PERFECT.

Front Royal is a Prosperous Town, with an Extensive Mercantile Business and Many Manufacturing Enterprises in Operation and Under Construction.

INVESTIGATION OF ITS ADVANTAGES IS INVITED BY THE

Front Royal---Riverton Improvement Company, FRONT ROYAL, VIRGINIA.

# IN WINSTON-

THERE IS REAL ESTATE

In North Carolina, and Conspicuously so in Winston-Than Anywhere Else

F you keep pace with the development of this great nation you know that this is North Carolina's year. In percentage of increase of population she leads every Southern State east of the Mississippi river, West Virginia and Florida alone excepted. If you know anything about this vast empire of mineral, timber and agricultural wealth you know Winston-Salem has more established factories, does more business and has brighter prospects for a great future than any other city in North Carolina.

As prices are low and a great development here in progress, this is the place to buy town lots. Even during the midsummer, there has been a steady demand for city property, 90 per cent. of which was for immediate use for stores or residence purposes.

Now is the time to buy. There will be a season of unprecedented activity in Winston-Salem this fall, and you can get in on the ground floor figures just now.

There are about 12,000 more people in the twin cities now than in 1880. This growth was made without any artificial aids, and represents just that many more manufacturers, business men and wage workers.

There have been marketed in Winston in the past nine months 14,000,000 pounds of leaf tobacco. The end of the tobacco year will probably see 3,000,000 more pounds marketed here. The average price paid is about 12 cents a pound. There are less than 30,000 people in Forsyth county. So there is paid out in hard cash for this one item at least \$60 per head per annum for every man, woman and child in the county.

There are 36 plug tobacco factories. and there are about seventy-five other factories—extensive wagon works, woolen mills, cotton factories, etc.—and they pay out over \$1,000,000 a year in cash for wages. This is over \$3,000 a day—nearly 25 cents for every man, woman and child in the city.

Is it any wonder that with such a stream of life blood being constantly pumped through her arteries Winston-Salem should be the most substantial, livest and best town of its size in the upper South?

There are 90,000 acres of timber land in Forsyth county alone—heavy oak forests, interspersed with hickory, walnut, poplar and pine. Dozens of woodworking establishments

If you desire Lots in WINSTON-SALEM views, pamphlets or other

PETER M. WILSON, Manager West End Hotel & Land Co. F. M. SIMMONS, President Winston-Salem Land & Investment Co.

G. W. MASLIN, Winston Development Co.

W. F. ANDERSON, Manager North Winston Land & Improvement Co.

WINSTON-SALEM.

# SALEM, N.C.

ACTIVITY RIGHT NOW.

salem, there is More Development Work Now Going on in the Whole Country.

find profitable employment for their capital. Does'nt it seem certain that dozens of others would find the field a profitable one?

Undeveloped coal fields, immense deposits of magnetic iron ore and acres of lime cliffs in the neighborhood, suggest possibilities in iron industries which are demonstrated in the development of new towns everywhere in the South.

Winston-Salem is the center of four railroads, and its North, South, East and West connections will soon be unsurpassed.

\$500,000 worth of new buildings were put up last year. There will be \$1,500,000 worth erected this year, including a \$100.000 hotel, and the demand is still far from being supplied.

Electric car lines, electric lights, telephone service, water works. Belgian block and macadamized streets are some of the necessary luxuries now enjoyed.

Having an altitude of more than 1,000 feet, with an average summer temperature of 80 degrees, and a mean winter temperature of 40 degrees, and an annual rainfall of 48 inches, it has an advantage in climate which has for a century given this section a great reputation for healthfulness.

The famous Salem Female Academy and the graded and military schools give unexcelled educational advantages.

There are seventeen churches, and the tone of the community is of the most elevated character. Salem is the center of the old Moravian settlement, and Winston is an energetic and in every respect creditable offspring.

Six conservative and responsible land companies offer for sale business, manufacturing and residence properties in and immediately adjoining the city, all within a mile of the public square.

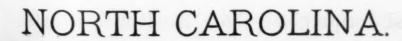
There is no city in the South with so abundant a supply of such beautiful suburban residence property in all directions as Winston-Salem possesses.

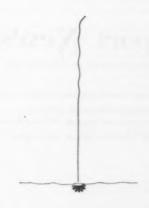
The substantial basis upon which Winston-Salem is built, her wealth-producing power, her rich surrounding country, her present needs and her inevitable increase in every material way, invite the manufacturer, the capitalist, the investor, the builder and the mechanic from everywhere, and promise him sure and generous rewards.

or any of its additions, plats, birds-eye information write to

JOHNSON & JONES, J. E. CATLIN, P. C. HUMPHREY or AMIS & SCOTT,

Real Estate Agents.





# LEXINGTON, VIRGINIA.

THE ATHENS OF THE SOUTH.

The Seat of the Virginia Military Institute and the Washington and Lee University.

The Very Center of the Tremendous Development of the Shenandoah Valley. Equi-Distant from Glasgow and Goshen, from Buena Vista and Cornwall

THE MOST DELIGHTFUL PLACE OF RESIDENCE IN YIRGINIA.

### THE LEXINGTON DEVELOPMENT COMPANY

Has acquired beautiful lands bordering the corporate limits, laid them out into streets and lots, secured large and valuable industries, and now offer its lots to the public. These lots furnish an opportunity to secure homes in this town of 4,000 cultivated refined people, the capital of the county of Rockbridge, where living is good and cheap, where educational facilities are unsurpassed, and where chances for profitable speculation could not be better. These lots will be sold at low prices and upon favorable terms. There will be no auction sale, but purchasers can buy at any time through the real estate agents. Address

J. D. H. ROSS, President, or J. McD. ADAIR, Secretary and Treasurer.

# THREE REGULAR STEAMSHIP LINES

HAVE JUST BEEN ESTABLISHED ON FIVE-YEAR CONTRACTS TO RUN FROM

# Newport News, Va.

LIVERPOOL, LONDON AND GLASCOW.

# Newport News Is the most rapidly-developing new seaport in the world. It has spiendid piers and wharves, and to accommodate the "navies of the world." It has the largest and best Iron

It is the only port South of Baltimore that has a regular Steamship line to Europe.

- It has three and others are under negotiation.
- It has a 1,500,000 bushel grain elevator.
- It will ship millions of bushels of grain this summer and fall.
- It ships about 1,000,000 tons of coal a year to New England ports.

It has splendid piers and wharves, and a harbor big enough and deep enough to accommodate the "navies of the world."

It has the largest and best Iron and Steel Ship Building Yard in America, built by Mr. C. P. Huntington at a cost of \$3,000,000, now employing about 2,000 skilled mechanics, to be increased to 5,000.

IT IS THE FUTURE GREAT SEAPORT AND INDUSTRIAL CITY OF THE SOUTH.

Unequalled advantages for many lines of manufacturing and for general business.

FOR INFORMATION ADDRESS

C. B. ORCUTT, President Old Dominion Land Company,

No. 1 Broadway, New York.

# VIRGINIA IN THE LEAD!

# VIRCINIA STEEL, IRON & SLATE CO., Richmond, Va.

Capital \$2,000,000, in Shares of \$100 each, par value,

Chartered under the laws of Virginia.

### OFFICERS.

F. T. ANDERSON, Howardsville, Va., President and General Manager.

I. E. GAINES, Richmond, Va., Treasurer.

J. G. HANKINS, Richmond, Va., Secretary

T. P. WILLIAMS, Lynchburg, Va., Mining Engineer.

### BOARD OF DIRECTORS.

WM. G. TAYLOR, Richmond, Va.

F. T. ANDERSON, Richmond, Va.

ALEX. CAMERON, Richmond, Va.

H. W. FLOURNOY, Richmond, Va.

S. BLANCHARD, Richmond, Va. T. P. WILLIAMS, Lynchburg, Va.

J. J. HICKOK, Richmond, Va.

# LOGAN CITY, VA.

And the Virginia Steel, Iron & Slate Co.



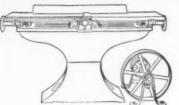
Favorable Reports from Professors Rogers, Campbell, McDonaid, Hotchkiss, Procter and Williams.

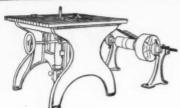
HEN the attention of capitalists and others was directed to the vast resources of the South, some years ago, the general rush then was for North Alabama; afterwards the claims of North Georgia, North Carolina and East Tennessee commanded notice, but now "Old Virginia" has the lead, and in the heart of Virginia's Mineral or Piedmont Section is LOGAN CITY, on the borders of the counties of Albemarie, Nelson, Buckingham and Fluvanna.

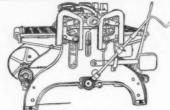
LOGAN CITY is so situated that the numerous leads, veins and deposits of steel-making ores, gold and copper ores, slate and soapstone, limestone and manganese and other valuable minerals are on every side, in every direction, and near at hand. Nature has wondrously favored this place as a location for furnaces, ferro manganese works, slate and stone works, woodworking plants, factories, lumber mills, woolen mills and other mills and works, which altogether would make Logan City a great city of diversified industries. The different works could defy competition and would pay handsome profits; and the shares of the Virginia Steel, Iron and Slate Company, of Richmond, Va., would become valuable. Eminent geologists and mining experts have visited and eraction and leads of ores near Logan City, and their favorable reports are printed in the prospectus of the company, which, besides official statements, reports, analyses of erac, etc., contains a number of views photographed from different points. The capital of the

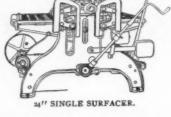
WRITE FOR ANY PARTICULARS TO THE

VIRGINIA STEEL, IRON & SLATE CO., - RICHMOND, VA









PHILADELPHIA, PA

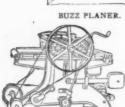
The celebrated "MOHAWK DUTCHMAN" BAND SAW GUIDE.

Acknowledged by all authority as the best.

> Send for a copy of "THE SECRET OF SUCCESSFUL BAND SAWING."

Every Band Sawyer shoula

Mailed free upon application.



# GOODELL & WATERS,

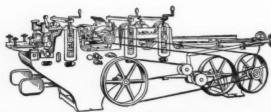
3002 Chestnut Street,

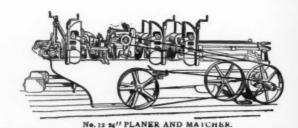
WESTERN BRANCHES:

227 W. 12th St., Chicago. 29 Spear Street, San Francisco

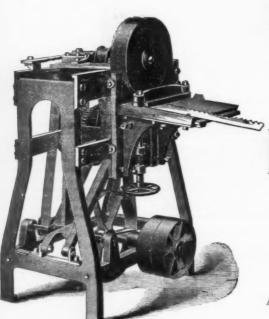
Designers and Builders of Wood-Working Machinery.

SEND FOR CATALOGUE. Kindly address the office nearest to you,





COVEL MANUFACTURING CO. File-Room \* Machinery.



BAND SAW SCARFING MACHINE.

UTOMATIC Circular Sharpeners, Gang Sharpeners, Band Sharpeners, Band Swages, Band Scarfers.

AND and Automatic Sharpeners, Hand Gummers, Circular and Gang Swages, Clamps, Benches, Tables, Pulleys and Stands, Braziers and Supplies.

Illustrated Catalogues and Price-Lists Mailed Free upon Application, Write for Prices.



BAND SAW STRETCHER.

Nos. 8 and 10 South Canal Street,

CHICAGO, ILL.

BUILDERS

ORIGINATORS.

# IE EGAN COMP

DESIGNERS

CONSTRUCTORS.

228 to 248 West Front Street,

COMPLETE OUTFITS FURNISHED

For Planing Mills, Sash, Door and Blind Work; Saw Mills Furniture, Chair and Bracket Factories; Car, Railway and Agricultural Works; Buggy, Carriage and Wagon Builders; Spoke, Wheel an I Handle Factories, Pattern Shops and General Wood-



SEND FOR A NEW CATALOGUE OR STATE YOUR WANTS.

OHIO, U. S. A. The Most Advanced Types

For Quality and Efficiency Our Tools are

TNEXCELLED. UNEOUALLED. UNAPPROACHED.

for the Swing of

TIME and LABOR.

THE LARGEST LINE IN THE UNITED STATES.



E. C. ATKINS & CO., Indianapolis, Ind. BRANCH HOL

Circular, Band, Gang, Drag and



Cylinder Saws

Re-Steeled.

ATKINS' SILVER STEEL BAND SAWS TEMPERED BY NATURAL GAS.

Repairing Promptly Done by Skilled Workme Factory Branch



SILVER STEEL MARK FULL LINE OF MILL SUPPLIES. ALSO A

Write for Sawyer's Hand-Book, Saws and Saw Tools, and our Prices.

# CORDESMAN, MEYER&CO

STREET, CINCINNATI, OHIO.



ood-Working Machinery OF EVERY DESCRIPTION.

Planing Mills, Furniture and Chair Factories. Carrie actories, Carriage, Wagon and Agricultural Works.

Write for our latest cat logue and price list. Correspondence solicited.



### UNITED STATES MACHINE CO.

WILLIAMSPORT, PA.

# ood-Working Machinery

We Make a Specialty of Saws, Planers and Clamps.

Send for Circulars and Prices

# REVOR MFG. CO. Lockport, II. Y.

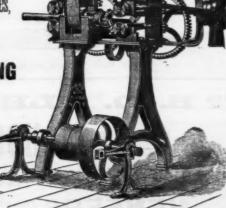
### Shingle, Heading and Stave Machinery,

Heading Sawing Machines, Heading Turners,

**VENEER CUTTING** MACHINES.

STAVE CUTTERS. Shingle Sawing Machinery. Shingle Machinery.

Lathes for turning Handles for Brooms, Mops, Forks, Hoes, Axes, Picks, Hammers, Cant Hooks, and for Ball-Bats, Peavy-Stocks, Pike-Poles, Spokes, Etc.



IMPROVED ROD AND DOWEL MACHINE

If you want Machinery for Staves, Heading, Shingles or Veneer Cutting, send for our catalogue "A." you want Handle Machinery, send for catalogue "B." Please say where you saw this advertisement.



# Sweepstakes PLANER, Matcher and Moulder



is Simple, Strong and Durable. Never falls in Yellow Pine or Hard Lumber.

ROWLEY & HERMANCE, Williamsport, Pa., U. S.A. Price: To plane with top head 24" wide, under head 20" wide & match 13%" and match 13%" wide, weight 2,000

Woodworking Machinery. C. B. Rogers & Co., Norwich, Conn. Planers and Molders.



THOS, K. CAREY & BRO. Agents, Baltimore, Md.

No. 10 Plan

261 LYELL AVENUE, ROCHESTER, N. Y.

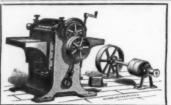
of Planers and Matchers, Surfacers, Timber Plan Saif-Feed Saw Tables, Moulders, Pony Planers, Etc.





# Brandon Variety Woodworker.

THE VICTOR MFG. CO., 6 W. FERRY ST., BUFFALO, N.Y.



Mood

CATALOGUE AND PRICES WILL BE SENT ON AP-PLICATION.

CHINERY AT THE NAVY YARD.

We We Wood Working Machines of every description. All our machines are tested before

shipment and guaranteed to give perfect

satisfaction.

GORDESMAN MAGHINE GO. NAVY YARD, KITTERY, ME.

26 to 36 Butler St., Cincinnati, O.

NEW DESIGNS FOR 1891.

# Woodworking Machinery.

Send for Descriptive Circulars.

S. A. WOODS MACHINE CO.

BOSTON

NEW YORK.

CHICAGO.

84 CLAY ST. Brooklyn N. Y.

## GLEN COVE MACHINE COMPANY, Limited,

Improved Planing Mill Machinery.



No. 84.-10-inch Patented Fast Feed Moulding Machin

SPECIALTIES: Fast-Feed Sizing, Planing and Matching, Fleering Ceiling, Inside Moulding and Double Surfacing Machines; also the brated GLEN COVE SPECIAL.

# JACOB J. MOLTZ, WILLIAMSPORT, PA.

LATH AND PICKET MILLS.

GANG EDGERS, ENDLESS CHAIN, LOG JACKERS, LOG TURNERS, PULLEYS AND SHAFTING,

00 to 90,000 per day of Pine; 40,000 to 60,00 Capacity of Lath Mill, 60,00



Gang Lath Mill ≠ Bolter

ROBT. EASTON, 157 Market Street, WILLIAMSPORT, PA.



SPECIAL PATENT SAW and SHINGLE MILL

# IACHINERY

KALAMAZOO, MICH.

Write for new Illustrated Catalogue

### MOLTZ, WILLIAMSPORT, JEROME



Gang Edgers, Gang Rip-Saws, Gang Bolters, Log Turners, Live Rolls, Trimmers, Etc., Etc.

ENGINES AND BOILERS.

SEND FOR CIRCULARS AND PRICES.



## HENRY DISSTON & SONS

KEYSTONE SAW, TOOL, STEEL and FILE WORKS,

PHILADELPHIA, PA.

Manufacturers of SAWS and FILES of Every Kind and Description.



Send for book "The Saw; How to Choose It, and How to Keep It in Order." Mailed Free.

## WE. D. ALBRO CO.

IM PORTERS

MANUFAC- Hardwood Lumber and

VENEERS DOMESTIC AND FOREIGN OF EVERY DESCRIPTION.

FULL LINE OF SEASONED STOCK.

- MILLS, CINCINNATI, ONIO.

Eastern Branch, 6th and Lewis Sts., E. R., NEW YORK.





# Todd Pulley & Shafting Works,

EAST ST. LOUIS, ILL. MANUFACTURERS C

Machine Molded Pulleys, Hangers, Boxing, Couplings, Shafting and Gearing.

Contracts Made for Machinery Castings of all Descriptions,

Write for Prices and Catalogues. Refer to us before buying.





42,000 IN US

### Injector Penberthy

"PHENOMENAL." Efficiency 99 1-2 per cent."

"EXCELLENT." "Efficacy 99.2 per cent"

RANGE 20 to 150 pounds. Lift 20 fees. Hot water supply, 113 to 125 degrees. 30 pounds pressure. One valve to operate. Automatic and re-starting.

DONEGAN & SWIFT,

PENBERTHY INJECTOR CO.

11 Murray St., N.Y. Trial, 30 Days. DETROIT, MICH.

160 Broadway, New York,

The Simplest and Most Perfect Boller Feeder Made.

HAS PRACTICALLY BUT ONE INTERIOR PART. Nothing to cut or wear out. IT IS SIMPLICITY AND PERFECTION.

No skill required to operate it.

Write for particulars.

ond, Va., sales agents for Virginia, North and South Carolina and SMITH-COURTNEY CO., Rich orgia; C. F. HAMBLEN, St. Augustine, Fla., sales agent for Florida,

# Reducing



OUR STEAM-REGULATING DEVICES are the Standard used by all the Sugar Refineries, Car-Heating Companies, Factories and Electric Stations. If you would economize fuel, write the Heating Co.

MASON RECULATOR CO., BOSTON, MASS.

VALVES tie and Single Gate, is ment ch.; outside and inside Septer Indicators, etc., for Gus, Water, Steam, Oil. SEND FOR CIRCULAR.



Also Fire Hydrants Yard and Wash Hydrants. Check and Foot Valves

COLD

FITZSIMONS & CO.

OLEVELAND, OHIO.

## Established 1874.

Taper Shank Drills, Straight Shank Drills, Blacksmith Drills, Bitstock Drills, Straight Fluted Drills. Machine Bit Drills.

## Cleveland Twist Drill Co.



OFFICES- Cor. of Lake and Kirtland Sts., Cleveland, O. Write for Disc MORTON, REED & CO., BALTIMORE.

Self-feeding Reamers, Expanding Reamers, Shell Reamers. Stay-bolt Taps,

Taper Reamers.



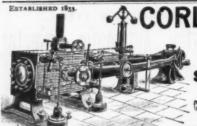
Graham Twist Drill Co. Detroit, Mich., U.S.A.

GRAHAM'S Patent Grooved Shank Twist Drills and

Chucks.

L. EDWARDS CO .-Makers of kemithe' and Carriage Makers Tools. rs' Suppilos, &c

COMPANY SCALE



**A**CORLISS ENGINES

HICH PRESSURE.

Compound and Condensing 25 to 3,000 H. P.

TEEL BOILERS

COMPLETE STEAM PLANTS A SPECIALTY.

C. & G. COOPER & CO., Mt. Vernon, Ohio.

Valley Automatic Engines.

ALLEY IRON WORKS

WILLIAMSPORT, PENNA.



# Company, Engineers, Builders,

IESBORO, PA.



40 to 1,000 H. P. Made.

Condensing, Non-Condensing & Compound. Send for Corline Circular.

Ice-Making and Refrigerating Machinery.

or Ice-Machine ecial Automatic Electric Light Engines, Steam Boilers, Traction and Portable Engines, Saw Mills, Send for our General Catalogue.

) FOR THE LOWEST-PRICED FIRST-CLASS (engines & boilers



GEO.W.TIFFT, SONS & CO. BUFFALO, N. Y.

te 500 H. P. Special Stock Sises 5 to 50 H. P., both Stationary and Semi-Portable.

A few good Second-Hand Engines and Bollers are rade at an astonishingly low figure. Must be sold make room for sto Correspondence solicted, ention this paper.

### CORLISS STYLE GIRDER FRAME ENGINES

From 12 to 225 Horse-Power. A. B. FARQUEAR CO., YORK, PA.

Portable Engines, Boilers and Saw Mills.

## The ALEX. K. RARIG CO.



BUENA VISTA, VA. Blast Furnace Plants, AUTOMATIC CUT-OFF ENGINES,

HOISTING ENGINES, silers, Boiler Plate Punches, ROLLS AND SHEARS, Clay-Working Machinery,

Steam Sewer Pipe Presses.

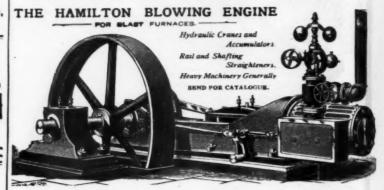
Wet and Dry Pans for Grinding an lotta, Brick and Tile. We furnish contast.

Write for catalogue. Correspondents.



# The Porter-Hamilton Engine.

The Heaviest Engine in America.



WILLIAM TOD & CO.

YOUNGSTOWN, OHIO.

# STEAM ENGINES AND BOIL

If you want the very best engine there is made, go direct to the builders, 30 Cortlandt street, New York, and get a NEW YORK SAFETY STEAM POWER CO. VERTICAL ENGINE for 2 to 20 horse power, or a HORI. ZONTAL AUTOMATIC ENGINE for 20 to 250 horse power. These Engines have the fewest possible wearing parts, all of which are in sight and easily accessible, which is what every intelligent engineer wants. 8,000 ENGINES IN USE.

PERGINES AND BOILERS Erected and Connected ready to run, also Shafting. Pulleys. Belting, Etc



Send for price list.

N. Y. SAFETY STEAM POWER CO.

Also, 64 South Canal St., Chicago.

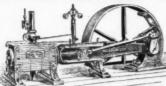
30 Cortlandt Street, New York.

## PHILADELPHIA CORLISS ENGINES.

Condensing.

Triple and Quaduple Expan

Vertical.



Superior Design. Workmanship and Finish.

Pest Material.

Highest Efficiency Guaranteed.

PHILADELPHIA ENCINEERING WORKS, Limitod, Mifflin & Meadow Sts., PHILADELPHIA, PA.

Simple. AUTOMATIC. CUT-OFF Cross Compound. Triple

Durability Smooth & Quiet Running

Expansion. Tandem Compound. The BEST Engine for Electric LIGHTING, Electric RAILWAYS, Electric MINING, Electric WELDING and General Manufacturing Purposes.



336, 338, 340, 342 The WARFIELD MANUFACTURING CO. BALTIMORE,



For Cities, Towns, &c.

### GENERAL MACHINE WORK.

Machinery Designed and Constructed for Special Purposes.

The Warfield-Pillings Automatic Engine. A high-grade
Engine, (for high or medium speed,) for electric light
and other purposes.

The Warfield Throttling Governor Engine—Horizontal and Vertical.

Class C.—Steam Boilers—Stationary Tubular, Upright Tubular. Class F.—Can-Making and Sheet-Metal Machinery.
Class G.—The Warfield-Pillings Patent Water Mote
Class E.—Fruit, Vegetable and Oyster Packers' Machinery—most
complete line on the market.

Any of the above Catalogues mailed upon application.

Any of the above Catalogues mailed upon applicati

RICHMOND, VA.



ALBOTT & SONS,

Engines Boilers, and

SAW, CORN AND WHEAT MILLS,

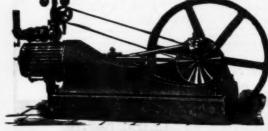
ROPE FEED for SAW MILLS, TIMBER GUAGES, grade sted by 1-16 of an inch. Shafting, Hangers and Pulleys.

Cotton-Seed Oil Mill Machinery.

MODERN COTTON GINNERIES.

RETIMATES AND CONTRACTS MADE FOR COMPLETE OUTFITS,

Embracing the Latest and Best Improvement.



BRANCH OFFICES:

MACON, GA.

CHARLOTTE, N. C.

THE JEWELL AUTOMATIC

Balance Valve, Self-Contained

For any and all uses where economy in steam and close regulation is ENGINE.

Alse a full line of Vertical Engines and Bollers, 2 to IO H. P.

C. H. DUTTON & CO.

# Engines and Boilers-

From I to 500 horse-power; Portable and Stationary, Horisontal and Vertical. Boilers plain tubular type, locomotive fire-box pattern, vertical and two-flue, steel or iron, as sired. Engines, Plain Slide Valve or Automatic Cut-Off. Send for catalogue, giving ut requirements, that you may obtain our estimate. Freight paid your station if

W. E. DREW, Agent,

S. C. FORSAITH MACHINE CO. Machinery Dealers, Manchester, N. H.

THE NORTH AMERICAN METALINE CO. of New York City, sole manufacturers of the Metalined or Oilless Bearing for Loose Pulleys, &c. having erected a commodious factory building on West Avenue, cor. West Third Street, Long Island City, N. Y., have removed thereto their main office and factory. Send for Loose Pulley Circular No. 5.

TRIPOD BOILER

Safety, Economy, **Low First Cost** 

Repeated tests prove that it is beolutely Non-Explosive and he most Durable ever made. Strong testimonials from hun-reds of users, in all parts of the s 10 to 1,000 H. P.

For full information addre

HAZELTON TRIPOD BOILER CO. CHICAGO, ILL.

RACINE AUTOMATIC



ADAPTED FOR

## Electric-Light Plants

AND OTHER HIGH DUTY.

Engines carried in steck from one horsepower up to 100 horse-power.

Immediate Shipment a Specialty.

RACINE HARDWARE MANUFACTURING CO. BACINE, WIS.



Woodworking & Ironworking Machines a Specialty.

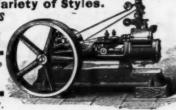
THE GLOBE MACHINE CO.

UPRICHT & HORIZONTAL

3 to 26 Horse Power, in a Variety of Styles STRONGLY BUILT on BEST PRINCIPLES for SMOOTH and ECONOMICAL WORK.

Over 4000 in Use. Write for FREE PAMPHLET and state your wants to

THE JAMES LEFFEL & CO. SPRINGFIELD, OHIO, or NEW YORK CITY.



SELF-CONTAINED, AUTOMATIC HIGH SPEED STEAM ENGINE

for Electric Lighting and Street Railway Service, WITH BOILER PLANT COMPLETE. Catalogue sent on application. —
STEARNS MFG. CO. ERIE, PA.





d.

١.

1.



## The Corliss Steam Endine Co. PROVIDENCE, R.I.

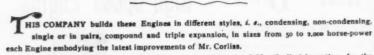
Incorporated June, 1856; Established by

## CEORGE H. CORLISS,

INVENTOR OF THE CELEBRATED

CORLISS ENCINE
DESIGNER & BUILDER OF THE FAMOUS CENTENNIAL ENGINE

Exhibited at the Philadelphia Exposition, 1876.



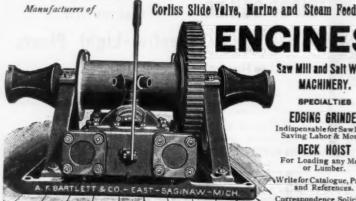
These works are fully equipped with heavy special tools of Mr. Corliss' invention, for the annfacture of these perfected Engines. This guarantees a degree of precision in workman and consequent interchangeability of parts not hitherto attempted.

These Engines are in general and successful use for Manufacturing and Electric Lighting and all other purposes requiring close regulation and economy in fuel.

THE PUBLIC will understand that we have no relations with American ar European builders of so-called "IMPROVED CORLISS ENGINES," and that the FINAL AND PERFECTED ENGINE OF MR. GEORGE H. CORLISS is to be obtained in America exclusively at our works.

### BARTLETT CO å

SAGINAW, EAST SIDE, MICHIGAN,



Saw Mill and Salt Works MACHINERY.

SPECIALTIES

EDGING GRINDER Indispensable for Saw Mills Saving Labor & Money.

DECK HOIST

For Loading any Mdse. or Lumber.

Writefor Catalogue, Prices and References.

Correspondence Solicited

### DS · CORLISS · ENGINE.



any required size, from 20 to 2,000 horse r and upwards. Horizontal or upright,

Non-Condensing, Condensing, Compound, Triple Expansion, or

QUADRUPLE EXPANSION. Write for Catalogue and list of users.

The EDWARD P. ALLIS CO

Reliance Works.

MILWAUKEF, WIS.

### Dake Double Reciprocating Square Piston Engine.

Not a Rotary, but a double reciprocating high speed Engine, and coupying less space than a rotary Engine of half its power. Particurily adapted to running ventilating fans, blowers, dynamos, and centifugal pumps, or any machinery requiring direct attached Engine, as ther high or low speeds. Economical of steam. Write for descriptive reular and testimonials.

DAKE ENGINE MANUFACTURING CO.

GRAND HAVEN, MICH.



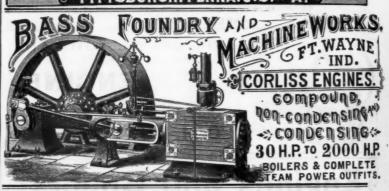
### A FEW PROMINENT MISCELLANEOUS USERS

(Excepting Governments and Rail

Adams Express Company; Allegheny City Light Plant; Allegheny County Light Company; Anheuser-Busch Erewing Company; Arbucke Brothers; Ashcroft Manufacturing Company; E Balbach & Bon; Baldwin Locomotive Works; Bowers Dredging Company; E Balbach & Bon; Baldwin Locomotive Works; Bowers Dredging Company; Brooks Locomotive Works; Brown & Sharpe Manufacturing Company; Bruak Electric Company of Baltimore; Brush Electric Cipht Company of Buffalo; Burlington Electric Street Railway Company; Carlegie, Phipps & Company; Cincinnati Gas Light & Coke Company; Carlegie, Phipps & Company; Cincinnati Gas Light & Coke Company; Carlegie, Phipps & Company; Cincinnati Gas Light & Coke Company; Core Brothers & Company; Crescent Steet Park Company; Carlegie, Phipps & Company; Cherry Company; Carlegie, Phipps & Company; Cherry Company; Coxe Brothers & Company; Coxe Brothers & Company; Coxe Brothers & Company; Coxe Company; Carlegie, Phipps & Company; Coxe Company; Coxe Company; Dunnell Manufacturing Company; Esst End Electric Light Company of Phitaburgh and Allegheny; Forest Paper Company; Gate City Oil Mills; Glen Echo Electric Street Railway Company of Washington; Herkimer Paper Company; Howe, Brown & Company; Illinois Steel Company; Lehigh Avenue Passenger Electric Street Railway Company; McKeesport Electric Light & Power Company; McCompany; Ompany of Phitadelp ita; Lombard, Ayres & Company; Metropolitan Electric Light Company; Metropolitan Electric Light (Company; Omaha Electric Light & Power Company; Omaha Electric Street Railway Company; Omaha Electric Car Works; Robert Poole & Son Company; Quaker City Dye Works; St. Charles Car Works; Saver-Man Electric Company; Electric Street Railway Company; Hollams Sellers & Company; Sherman Oil & Cotton Company; Shoenberger & Company; Southern Cotton Oil Company; Calus Spreckels Sugar Refinery; Tacoms Light & Water Company; Herker Company; Wellman Iron & Steel Company; Wellman I

Over 3000 other use

# WESTINGHOUSE MACHINE COMPANY. PITTSBURGH. PENNA. U.S. OF A.



### BECK AUTOMATIC ENGINE.



ticulars. Also builders of Pos. Address TATLES HANTS.

### EYE AUTOMATIC CUT-OFF ENGINES

AND HIGH-SPEED ENGINES.

Simple, Compound and Triple Expansion Engines, High-Pressure Boilers.

Complete Steam Power Plants of Highest Attainable Efficiency.

## Address BUCKEYE ENGINE CO., Salem, Ohio.

Or Sales Agents—Robinson Cary Co., St. Paul, Minn.; N. W. Robinson, 97 Washington St., Chicago, Illa.; Jas. Creighton, 635 ist St., Louisville, Ky.; Chattanooga Saw Works, Chattanooga, Tenn.



dapted to Heavy, Continuous work. Engine Tested Under Full Load. Sultable BOILERS on hand for im-

CHANDLER & TAYLOR CO. INDIANAPOLIS

## NO SKILLED ENGINEER



The most reliable, efficient and satisfactory power for Creameries, Elevating Water, Cutting Ensilage and Feed, and all small manufacturing purposes.

Send 5 cents for Catalogue,

SHIPMAN

ENGINE

306 Summer Street, Boston, Mass.

J. C. McNEIL CO.

tandpipes, Boilers = Tanks,

OF EVERY DESCRIPTION.

Write for Prices

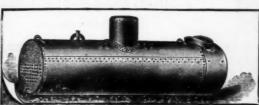
S

E

S.

343

AERON, OEIO.







AWARDED THE GRAND PRIZE AT LATE PARIS EXPOSITION.



### The CRANDALL PACKING CO

MAIN OFFICE AND WORKS: PALMYRA, NEW YORK. OTHER OFFICE: New York, 136 Liberty Street. Chicago, 28 S. Canal Street.

Our Improved Packings for Steam, Water and Ammonia OUT: AST ALL OTHERS, because the life and elasticity of the rubber have not been impaired by the chemical action of boiling oil.



Safety Water-Tube Steam Boilers.

ECONONY IN FUEL AND SPACE. FREEDOM FROM SCALING. POSITIVE CIRCULATION.

Equally adapted for Power or Heating Purpose for Clear or Muddy Water, and any kind of Fuel. Send for Circular J to

HEINE SAFETY BOILER CO., Bank of Commerce Building, ST. LOUIS, MO.

OR TO OUR AGENTS:

Risdon Iron Works, - San Francisco, Cal. Van Zile, McCormack & Co., - Albany, N. Stearns, Roger & Co., 3 Duff Block, Denver, Col. I.as. K. Rugg & Co., 107 W. Second St., Clincinnati, O. Cincinnati, O. C. Gooch, 448 W. Main St., - Louisville, Ky. Seager & Guernsey Co., City of Maxico, Mc City of Mexico, Mex.

and Sheet Iron Work, Engines, Cotton Gins and Presses, Machinery for Fertilizer Works and Phosphate Washers, &c.

VALK & MURDOCH IRON WORKS.

CHARLESTON, S. C.

CASEY & HEDGES BOILER CO.

BOILER

STACKS, CUPOLAS, HEATERS and BLAST FURNACE WORK.

Carry in stock BOILERS AND ENGINES, all sizes, also Second-Hand Boilers and Engines, so tous of Plate and Sheet from, so, one ft. of Boiler Tubes, Injectors, Inspirators and Boiler fittings of all kinds.

When you want Boilers wire us—one typense—for prices.

CHATTANOGGA, TREE

STATIONARY

Boiler Makers and Sheet-Iron Workers.

REPAIRING PROMPTLY BONE.

Manufacturing **Sleam Roller** 

SFFICE, 242 E. Par's St. (opp. Pittab'g, Cincinnati & St. Louis Ry.), GISCHWATI, 4. RECOND-NAND BOILERS ALWAYS ON MAND.



Write for Prices.

THE RAVENNA BOILER WORKS.

Steam Boilers and Tanks,

Stills and Agitators, Plate and Sheet Iron Work of Every Description. RAVENNA, OHIO.

No. 51 FRONT ST., ADAMS CO., QUINCY, ILL.



BUILDERS OF HOISTING ENGINES, CAGES, TIPPLES, MINE CARS, Sheave Wheels, Screen Bars, Chilled Car Wheels, Box Irons and Axles.

BOILERS, PUMPS, REVOLVING SCREENS, VENTILATING FANS

all kinds of Equipage for Mines; Complete Power Plants for Mills, Elevators, Cotton Gins and general purposes.

ESTIMATES AND CATALOGUES furnished

CRAWFORD'S PATENT EXHAUST PIPE HEAD



market. 30 days' trial given responsib WRITE FOR PRICES. CLEVELAND STRAM FITTING & SUPPLY 08., (is

ADVERTISERS wishing to reach the manu facturers of all classes, mining companies, steel, iron and hardware dealers of the entire South cannot find a better medium than the MARUFACTURERS' RECORD.

# Dredges in Shovels

Correspond with the

# For Coal, Iron and Phosphate Mining, Railroad and Contractors' Use,

# WOODBRIDGE & TURNER ENGINEERING CO.

Consulting and Constructing Electrical and Mechanical Engineers.

ENOS L. MOORE,

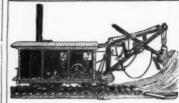
ENGINEER AND CONTRACTOR.

GRAND RIVERS, KY.

Complete Equipment of Electric Railways, Steam and Electric Plants.

47 TIMES BUILDING, Telephone Call, 1009 Cortlandt.

NEW YORK.



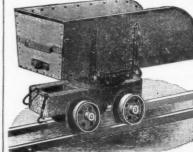
For Drainage and Irrigation, Filling Land, Levee Work, Harbor Work, Etc.

### STEAM SHOVELS,

For Railroads, Contract Work, Stripping Coal and Ore, Brickyards, Highways, Etc.

### Steam Shovel & Dredge

BUCYRUS, OHIO.

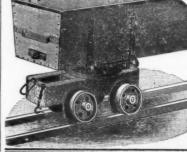


# The Corey Car & Mfg. Co.

# DUMPING & MINING CARS

### Portable Track and Switches.

301 & 303 Phenix Building, CHICAGO, ILL.



# Any Thickness up to one-quarter inch. Any Size up to 45x45 inches. Any Shape.

WANTED TO CONTRACT FOR

THE CLEVELAND WHEELBARROW & MANUFACTURING CO.,

Blast Furnaces and Structural Iron Work.
Now building two Furnaces at Grand Rivers, Ky.

Cleveland, Ohio.



MANUFACTURERS FRED.G.WEIR'S CINCINNATION FIXED& AUTOMATIC SWITCH FIXTURES.

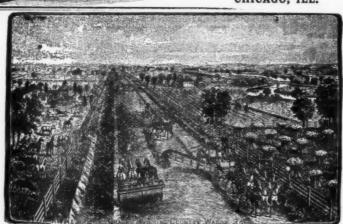
FIXED& AUTOMATIC SWITCH STANDS. STEEL

PRES DIE FORMED RAIL BRACES, SWITCH FIXTURES, ETC

CABLE FLEURIC TRACK WORK FROGS SWITCHES (ROSSINGS, CURVES RAIL CHAIRS







For building Country Roads will grade 1 mile of road in 3 days, with 6 teams and 3 men, at an expense for labor not exceeding 15 cents per rod. In Railway grading, or Ditch building, guaranteed capable of placing in embankment 1,000 to 1,500 cubic yards of earth in 10 hours or loading 600 to 800 wagons in same time. For catalogue and information, address

F. C. AUSTIN MANUFACTURING CO., CHICAGO, ILL.



Pennock Reversible

Vulcan Adjustable Steel Road Builders.

VULCAN ROAD MACHINE CO., Charles Town, Jefferson Co., W. Va.





Goker-Metcalf Power Grain Shovel. BELTING.

"HERCULFS" Steel Scoop. SPIRAL STEEL CONVEYOR.

#### Railroad Construction

Albany, Ga.—Railroad.—At a recent meeting of stockholders of the Columbus Southern Railway (office, Columbus), resolutions were passed authorizing the directors to extend the road from either Dawson or Albany south into Fiorida, and to issue bonds to cover the cost of the extension.

Anniston, Ala.—Street Railway.—S. P. Ingram, of Auniston, has franchise to build the street railway mentioned in last issue, but has not as yet perfected all arrangements.

Ashville, Ala.—Railroad.—Audrew Johnson, president of the Tennessee River, Ashville & Coosa Railroad, has, it is reported, closed financial arrangements for the completion of that road.

Atlanta, Ga —Railroads.—A bill in:orporating the Atlanta, Hapeville & Manchester Railroad, having passed the legislature and been approved by the governor, is now a law.

Atlanta, Ga.—Railroad.—The bill chartering the Atlanta, Southern & Western Railroad Co., lately referred to, has passed the legislature and been signed by the governor. This company, it is understood, proposes building a line from Atlanta to Randolph county, Ala.; another to Savannah, with one branch leading off in the direction of Charleston or Port Royal; another to Brunswick, one to Darien and one to Way Cross. C. A Evans, of Augusta, can give particulars.

Atlanta, Ga.—Railroad.—A bill has been introduced in the legislature incorporating the South ern Air Line Railroad Co, to build a railroad from Atlanta to some point on the Florida line via Greenville.

Augusta, Ga.—Railroad.—C. T. Hague, Jesse Thompson, F. B. Pope, C. E. Smith and G. E. Lynden have, it is reported, chartered the Seabard & Augusta Railroad Co. to build a railroad from Augusta to some point in Florida near Tallahassee or Tampa. The capital stock is \$1000.000.

Baltimore, Md.—Electrical Railroads—The North Baltimore Passenger Railway Co. and the Central Railway Co. have applied to the city council for permission to use the trolley electric system. The Baltimore Union Passenger Railway Co., lessee of the Baltimore & Hampden Railway, has applied to the county commissioners for authority to extend same along Roland avenue and operate by electricity.

Baltimore, Md. — Electrical Railroad. — The North Avenue Electric Railway Co., recently mentioned, has, it is stated, awarded contract for building its road to E. B. Smith & Co., of Philadelphia.

Blue Wing, N. C.—Railroad.—W. Raker will make arrangements for the building of a branch line of railroad.

Brooksville, Fla.—Railroad.—L. Y. Jenness, president of the Brooksville & Lacoochee Railroad Ce., lately referred to, reports that the locating survey has been completed and estimates of work are nearly ready for the contractors.

Cameron, Texas — Railroad. — The work of tracklaying on the San Antonio & Aransas Pass Railway (office, San Antonio) between Cameron and Lott, which was suspended by an injunction, has been recommenced.

Carrollton, Ga.—Railroad.—A bill has been introduced in the legislature chartering the Carrollton & Roanoke Railroad Co.

Charleston, S. C.—Street Railway.—The Enterprise Railroad Co. is considering the extension of its street railway several miles.

Christiansburg, Va.—Railroad.—The construction of a branch railroad from Christiansburg through the lands of H. D. Wade and others, a distance of 3 miles, is proposed.

Clifton, Tenn.—Railroad.—George R. Johnson, trustee and general manager of the St Louis & Birmingham Railroad Co., writes that a corps of locating engineers was put on the route on the 15th instant, and contract is now let for 12 miles of grading between Florence, Ala., and Clifton, Tenn, to Lane Bros. It is expected that another force of men and teams will be put to work on the road in a short time. L. S. Proctor is chief engineer.

Columbus, Ga.—Electrical Railroad.—Eugene T. Lynch, Jr., of Memphis, Tenn., has contract for complete equipment for the electrical railroad of the North Highlands Co.\*

Conroe, Texas—Railroad.—Kennedy & Stone, contractors, have 500,000 yards of scraper work and 40 miles of clearing right of way to sublet on the Kansas, Louisiana & Eastern Railway, referred to in last issue.

Corpus Christi, Texas—Railroad.—It is stated that Refugio and Goliad counties have raised the required bonus for the extension of the Corpus Christi & South American Railway to Victoria, previously reported. Victoria county has, it is said, about secured its portion of the bonus.

Corsicana, Texas-Railroad.—A proposition of Eastern parties to build the Corsicana & Southeastern Railroad, submitted by A. Wickers, their representative, is said to have been accepted. They prop se building the road from Corsicana in a southeastern direction a distance of from 50 to 75 miles, work to commence within 12 months, and to locate the general offices, together with the main machine shops of the railroad company, in Corsicana. In consideration they require from Navarra county a donation of \$30,000, suitable depot grounds in Corsicans, right of way to the Navarra county line and the charter of the Corsicana & Southeastern Railroad.

Gatesville, Texas—Railroad.—The extension of the St. Louis & Southwestern Railway (office, St. Louis, Mo.) from Gatesville to Brownwood is being discussed.

Greensboro, N. C.—Electrical Railroad.—The Greensboro Street Railway Co., previously mentioned, has been organized with R. M. Douglas, president; J. M. Jordan, vice-president, and G. S. Sergeant, secretary. The company contemplates building an electrical railroad with perhaps horse-car connections. Information can be sent to the president or to J. D. Kase, general manager North Carolina Steel & Iron Co.\*

Greenville, S. C.—Railroad.—An election will probably be held in Greenville township on October 14 to consider the question of subscribing \$30,000 of bonds to the Glenn Springs Railroad Co., referred to in last issue (under Glenn Springs), the same to be held for the Cape Fear & Cincinnati Railway Co. upon said company agreeing, on or before January 1, 1892, to construct its road the entire distance between Greenville, S. C., and Southport, N. C., within 3 years from July 22, 1891. S. S. Crittenden can give information.

Greeneville, Tenn.—Dummy Line,—Captain Bowie will, it is stated, survey a route for a dummy line from Greeneville to Tusculum.

Hearne, Texas—Railroad—Bracey Bros. & Co., of St. Louis, Mo., have a contract to build part of the Hearne & Brazos Valley Railroad, lately referred to.

Irvine, Ky.—Railroad.—The Richmond, Nicholasville, Irvine & Beattyville Railroad Co. (office, Louisville) has arranged, it is stated, to secure about \$500,000 to complete its road from Irvine to Beattyville, a distance of 36 miles.

Knoxville, Tenn.—Electrical Railroad—The Mabry Street Car Line will, it is stated, be changed to electric power and extended through East Knoxville to Craig.

Mammoth Spring, Ark.—Railroad.—It is announced that the reorganization of the Houk Railroad Co. has been effected, with Jay Gould, of New York city, owning controlling interest. The company proposes building a railroad from Mammoth Spring to a gap in the Boston mountains, thence south to Little Rock and through to the Louisiana State line. It is stated that arrangements are being made for the immediate construction of the road, and that R. D. Luther, of Thyer, Mo., is largely interested in the company. The capital stock is \$1,000,000.

Memphis, Tenn — Electrical Railroad.— Eugene T. Lynch, Jr., has secured contract for complete equipment for the electrical railroad recently reported as to be built by the Raleigh Springs Railway Co.\*

Moundsville, W. Va.—Electrical Railroad.— The Moundsville Mining & Manufacturing Co. has applied to the city conneil for franchise to operate an electrical railroad.

Mt. Sterling, Ky.—Railroad.—The Kentucky Midland Railway Co. (office, Frankfort) proposes, in consideration of \$75 000, to extend its line from Paris to Mt. Sterling, and, for \$50,000, to build a line from Mt Sterling to Indian Old Fields or some point east of that on the Kentucky Union Railroad.

Ocala, Fla.—Railroad.—The Phosphate Railway Co. has been chartered by W. H. Adams, C. M. Brown and A. C. Quarrier to build railroads, etc. The capital stock is \$20,000.

Oneonta, Ala.—Railroad.—It is reported that contract will soon be awarded for building the extension previously mentioned of the Birmingham Mineral Railroad (office. Birmingham) from Oneonta via Guntersville to Huntsville.

Pensacola, Fia.—Street Railway—The Pensacola Terminal Railway Co., of which Graham Gordon, of Baltimore, in president, contemplates extending its atreet railway.

Richmand, Va.—Railroad.—At a recent meeting of s'ockholders of the Richmond & Chesapeake Railroad Co., recently reported as to build a railroad and railroad tunnel, the tunnel ordinance passed by the city council was accepted. The work of completing the tunnel and building the road is to be shortly commenced.

Richmond, Va.—Railroad.—The Brook Turnpike Railroad Co. bas, it is stated, obtained permission to build a railroad on the Brook Pike.

Rock Hill, S. C.—Electrical Railroad.—The Rock Hill Land & Town Site Co. is considering the changing of its dummy line to the electric system.\*

Shelby, N. C.-Dummy or Electrical Railroad. G. M. Webb, Jr., & Co. have secured a franchise to build a dummy or electrical railroad.

Shelbyville, Tenn. - Railroad. - The Shelbyville & Franklin Railroad has been chartered by B. J. Campbell, of Franklin, and others to build a railroad.

Showell, Md.—Railroad.—It is stated that surveys are in progress for a new branch to Ocean City of the Philadelphia, Wilmington & Baltimore Railroad (office, Philadelphia, Pa.) from Showell, on the Delaware, Maryland & Virginia Road. The distance is about 6 miles.

St. Augustine, Fla.—Street Railway.—Dr. J. K. Rainey has, it is stated, commenced building the street railway mentioned in last issue.

St. Petersburg, Fla.—Railroad.—TheSt. Petersburg & Gulf Railroad is to be chartered with Captain Patrick, president, and J. B. Pepper, vice-president, to build a railroad from St. Petersburg to Disston City, a distance of 8 miles.

Sumter, S. C.—Electrical Railroad.—The street railway lately mentioned will probably be an electrical railroad. D. M. Graham can give information.

#### C. P. Huntington and Newport News.

A dispatch from Newport News, under date of September 19, to the Richmond State says:

"C. P. Huntington, who arrived here yesterday, expresses himself as being much pleased with the progress of his great drydock and ship-building enterprise. This already vast plant is being enlarged by onethird, and when it is fully completed will employ 7,000 hands. As it is, 2,000 or 2,500 men are at work on the new ships. Iay Gould was to have met Huntington here, but telegraphed that he was prevented on account of pressing business. They will be here together later in the fall. It is thought that a big scheme is on foot to bring the Richmond & Danville Railroad here, but nothing definite is known. Parties close to Mr. Huntington make big predictions for the rapid growth of Newport News.

#### Good Work for the South.

There is no estimating the good work for the Southern States and the advancement of our material interests which the MANUFACTURERS' RECORD, of Baltimore, has, since its establishment some years ago, continuously accomplished. That enterprising journal proposes to place Southern resources and the opportunities for investments in them upon a still broader field by the direct agency of placing the large amount of information it gathers weekly before the people of Great Britain by means of a branch office just established in London.—Buena Vista Advocate.

#### Want to Move South.

Messrs. A. Rosenberger & Co., of the Brighton Mills, manufacturers of cotton and woolen goods, 5th street and Columbia avenue, Philadelphia, are looking for a Southern location for their mill with a view to forming a stock company to employ 200 hands.

THE Carolina Mining & Manufacturing Co, whose works are situated at Kıllian's, adjacent to Columbia, S. C., is, according to the Record of that city, now shipping goods as fast as they can be loaded to North Carolina, Florida, South Carolina and elsewhere. This company shipped to one customer in August 100,000 fire brick, and reports from purchasers everywhere are of the most satisfactory nature. They have just concluded several very successful experiments in the manufacture of chemical brick, a brick that is generally used in acid chambers, and expect to be manufacturing them within 30 days.

NEW BIRMINGHAM, TEXAS, with its numerous industries and advantages, is described in a neat pamphlet just issued by this enterprising town. New Birmingham is now offering the most liberal inducements to secure manufacturing plants and immigration, and the pamphlet contains the information usually desired by prospectors. Mr. R. L. Coleman, president of the town company, will furnish any particulars desired.

# Increasing Industrial Activity Throughout the South.

In every direction throughout the South

there is a brightening outlook in business,

an increasing volume of trade, a revival of confidence and a general feeling that the South is to share to the fullest extent in the great activity and prosperity that is assured for the whole country by the enormous crops and the European demand for all our surplus grain. The number of new industrial enterprises organized in the South, as reported in this week's issue of the MANUFACTURERS' RECORD, is already increasing, and the past week has shown more activity than for several months. In the lumber interests especially there has been greater activity. The contract made last week by Louisiana mills to furnish 50,-000,000 feet of lumber for shipment to Germany has been followed by the sale of 100,-000,000 feet at a price of about \$1,000,000 by Texas mills, to be used in the construction of 1,000 miles of new railroad. West Virginia a mill to cut 50,000,000 feet a year is being built on the Gauley river. Among other lumber enterprises is a saw mill at Leths, Ala; box factory at Fort Meade, Fla.; saw mill. Alexandria, La.; \$10,000 lumber mill, Waynesville, N. C.; barrel and box factory, New Berne, N. C., chair factory, Buckhannon, W. Va.: lumber and planing mill, Charleston, W. Va; planing mill, Milton, Fla : \$40,000 lumber company, Newport, Ky.; \$100,000 lumber company, Florida; saw mill, Mt. Olive, N. C.; pump and lumber company, Memphis, Tenn.; lumber and pulp mill, Centralia, W. Va. Among the miscellaneous enterprises reported for the week were a flour mill in Alabama; foundry and machine shop at Tuskaloosa, Ala ; phosphate-mining ompany at Anthony, Fla.; canning factory at Bluff Springs, Ala.; \$50,000 manufacturing company at Baltimore, Md.: \$25,000 canning factory at Atlanta, Ga.; \$100,000 steel company at Maysville, Ky.; an increase of cotton-mill capital in Marion, S. C., from \$37,000 to \$100,000 for enlargement; an increase in Galveston rope-making company of \$50,000; in a Maryland cement company of \$25,000; a \$200,000 fibre company in Florida; large phosphate works in Georgia; \$100,000 cotton bleachery company in Alabama; tannery at Mannington, W. Va.; \$200,000 coal mining and coke company at Springfield, W. \$100,000 fertilizer factory at Lake City. Fla.; a marine railway at Brunswick, Ga.; a cotton mill in Cedartown, Ga.; a \$500,000 coal mining company at Fort Worth, Texas; \$15,000 street improvements at Orlando, Fla.; \$100,000 safe and lock company at Covington, Ky.; \$30,000 transportation company at Kenova, W. Va., to coal, etc.; stove works at Mounds-ville, W. Va.; knitting mill at Huntsville, Ala.; \$119,000 phosphate company in Florida; three tobacco factories at S atesville, N. C.; \$30,000 street improvements at San Antonio, Texas; the purchase of 2,000 acres of land and large water-power for development with a view to furnishing cheap power in Savannah, Ga: a \$25,000 foundry and machine shop at Wichita Falls, Texas; agricultural im plement works at Wytheville, Va.; \$100,000 development company at Charleston. W. Va.; \$50,000 water works at Gainesville, Fla.; water works at Green Cove, Fla.; bids invited for water works at Fort Worth, Texas, to cost \$500,000 to \$1,000,-000; ice factory at Lake Providence, La., etc.

For a hot summer week, before the usual activity of fall has commenced, this summary shows that the South is getting ready to do a great deal of business this season.

MESSES. STEIN & SCHWARZ, of Philadelphia, have nearly completed the building of a new charcoal blast furnace for the Napier Iron Co. at Napier, Lewis county, Tenn.

## Southern Financial News.

#### NEW BANKS.

Atlanta, Ga.—The Georgia Banking & Loas Co., of Atlanta, recently mentioned, has been chartered by the legislature.

Bluefield, W. Va.-James E. Mann and asso ates have applied for authority to organize the First National Bank of Bluefield.

Charleston, S. C.—G. B. Edwards is president, and P. N. Pickens, cashier, of Exchange Banking & Trust Co., previously reported as being organized with a capital stock of \$50,000. The capital will, it is said, be increased to \$100,00

Elizabeth City, N. C.—The First National Bank, referred to in last issue, will commence business October 1. The capital stock is \$50,000.

Greenwood, Miss.—The Citizens' Bank, previ-usly referred to, has been organized. T. S. Marye is president, and W. M. Anderson,

Italy, Texas. - Clark & Dunlap are reported as

Kerrville, Texas,—Charles Schreiner expocts, it is stated, to change his private banking business into a national bank early this fall.

Little Rock, Ark .- The organization of two new banks is talked of, but no move has as yet been made to that end. J. B. Speers, J. T. W. Tillar and Dr. C. M. Taylor are identified with one, which it is contemplated to make a large concern. The other is to be a small bank, and Lucien W. Coy and J. E. England are mentioned in connection with its establishment.

Louisville, Kv.-The Kentucky National Bank has, it is stated, arranged for the renewal of its charter for a period of 20 years from October 19, on which date the present charter expires.

McDonough, Ga.—James W. Alexander, T. D. Stewart, G. F. Turner and others will probably organize a State bank with a capital stock of

Montgomery, Ala -The Farley National Bank recently reported as suspending paymen probably resume business at an early date.

Newport News, Va .- The First National Bank, recently reported as organized to succeed the Bank of Newport News, has been authorized to commence business. The capital stock is \$100,000.

Richmond, Va.—E. W. Overbey has been elected cashier of the Business Man's Bank, recently reported as to be organized with an authorized capital stock of \$300,000.

Rome, Ga.—The Farmers & Merchants' Bank of Rome has been chartered by the legislature.

Russellville, Ala.—The bank mentioned in last issue has been organized as the Franklin County Bank with James May, president; Walter Moore, vice-president, and J. S. Moore, cashier. The capital stock is \$50.00

Senatobia, Miss.-The Tate County Bank, lately mentioned, has been organized with J. M. Walker oresident; I. D. Oglesby, vice-president, and P A. Rush, cashier. The capital #ock is \$25,000.

Shendun, Va.—The Shendun Banking & Invest-nent Co. has made application for authority to hange its name to the Bank of Shendun.

Velasco, Texas.-The Bank of Velasco is re organized with J. M. Moore, preside and R. T. Ervin, cashier.

Wilkesborough, N. C.—A. A. Finley is reported s to establish a bank.

Austin, Texas.-The Western Investment & Security Co., of New Jersey, has obtained permit to do business in Texas. The oapital stock is

Baltimore, Md.—The Baltimore & North Caro-ina Copper & Gold Mining Co. has levied an ssessment of five cents per share on its capital

Baltimore, Md.-The Baltimore Traction Co has declared a quarterly dividend of 1 per cent. on its capital stock.

Beattyville, Ky.—An election is to be held to consider the issuance of \$15,000 of bonds for railroad purposes. The mayor can give particu-

Birmingham, Ala.-Blair & Co., of New city, have, it is stated, purchased \$100,000 of lefferon county road improvement 6 per cent. be

Charleston, S. C .- D. H. Chamberlain, receiver, notice that, pursuant to an order of the United States Circuit Court, the suppose of the first consolidated mortgage bonds of the South Carolina Railway Co., which matured October 1, 1890, will be paid at the Central Trust Co.'s office, 54 Wall street, New York city, on and after September 20 until the 30th inst., and thereafter only at the office of the receiver in Charleston

Columbus, Ga.-The directors of the Columbus outhern Railway were authorized at a re-ecting of stockholders to issue bonds for ading the road.

Dalton, Ga. - The Crown Coston Mills has it is stated, declared a dividend of 25 per cent.

Fayetteville, Tenn.-The Southwestern Pacific Investment Co. has been chartered.

Fort Payne, Ala.—At a recent meeting of the ity council, it was decided to issue \$15 000 bonds of the denomination of \$500 each. of the deno

Fort Smith, Ark .- The Fort Smith Loan & In stment Co has, it is stated, been organized by S. Smart and others.

Glasgow, Ky .- The issuance of \$15,000 of bonds provements is propos

Glasgow, Va.-The Rockbridge Co. will is of bonds, and has mortgaged its pr erty to the Manhattan Trust Co. of New York

Greenville, S. C. The issuance of \$30,000 of 6 per cent, bonds is proposed, S. Crittenden an give particulars

Kenova, W. Va - The Kenova Loan & Trust Co. has been chartered by W. W. Coe and others. The authorized capital stock is \$500,000.

way Co. has executed a mortgage to the American Loan & Trust Co. of Boston, to secure an issue of \$700,000 of bonds Knoxville, Tenn - The Knoxville Electric Rail-

Lexington, Va.—The Loch Laird Improves Co. has declared a dividend of 7 per cent.

Newberry, S. C. - \$15,000 of 6 per cent, 20-year bonds issued by Newberry School District are offered for sale at par and accrued interest. R. L. McCaughrin, president National Bank of Newberry, can be addressed.

New Castle, Va.—The Mountain Lake Land Co. has declared a dividend of 4 per cent. on a capital stock of \$900,000.

Raleigh, N. C.—A semi annual dividend of a per cent. has been declared by the Raleigh & Gaston Railroad Co.

Richmond, Va.—E. R. Leland, special commis-oner, gives notice that he will pay the bonds of coupons of the first and second mortgage onds of the James River & Kanawha Co. upon blivery.

envery.

Wilmington, N. C.—The city will issue \$400 to 0.5 per cent. 30 year bonds of the followin enominations: 48 \$100, 210 \$500 and 300 \$1,00 to 0.5 M. A. Willson can give particulars.

Winston, N. C.—Forsyth county will vote November 10 on a proposition to issue \$50,000 of bonds to build a courthouse.

# Southern Securities BOUGHT AND SOLD.

We Buy Total Issues of City, County, Water Company and Street Railroad

# BONDS

Correspondence Solicited.

N. W. HARRIS & CO., Bankers.

15 Wall Street, New York.

163 & 165 Dearborn St., Chicage, 70 State St., Beston.

#### WANTS.

WANTED AT ONCE-FIRST CLASS MA-CHINISTS and PATTERN MAKERS by the KNOXVILLE CAR WHEEL CO, Knox-ville, Tenn.

A GENTLEMAN of extensive business experience (aged 43), now holding a position of trust in large iron works. WANTS A POSITION WITH SOME FACTORY in a small town. Salary not so important as the desire to leave a large city. No preference as to locality, only a good town. Address "X, Y, Z.," care of MANUFACTURERS' RECORD

MANUFACTURERS PROMOTED.—A. K. Rarig Co.,
ACHINISTS WANTED.—A. K. Rarig Co.,
Buena Vista, Va., WANTS 50 FIRST:
CLASS MACHINISTS. Steady employment,
good wages and cheap living.

WANTED. - A POSITION AS BOOK.
KEEPER. Best of reference furnished.
Address A. F. BOWEN, 412 Park Avenue, Address A. R. Williamsport, Pa.

WANTED. — POSITION AS SUPERIN-TENDENT OF FERTILIZER WORKS. e vers' experience; understands manufac-of Sulphuric Acid from pyritos or sulphur, and management of Glover and Gay Lussac ers, Address "R. E. E.," care Manufac-tes' RECORD.

MANTED—By a Man who has been for years superintendent of two of the largest factories and building concerns in the South a position as Mill Manager or Building Superintendent. Is a good draughtsman and thorough mechanic. Can furnish best of references, including present employers. Virginia preferred. Address A. D., care Manufacturers' Record.

employers. Virginia preierred. Address A. D., care Manufacturers' Record.

WANTED—PARTNER WITH CAPITAL, to build a Railroad about 30 miles long. Opens a sp'endid country. Splendid terminal facilities. Charter can be easily obtained; donation of valuable land can be got; a good passenger and freight business can be had, but the main business of the road for a few years would be the logging and lumbering business. Timber within one mile will twice pay for the cost of building road. \$3,000 per mile will fully build the road with 30-lb. steel rails. Correspondence solicited from capitalists who mean business. Have three miles of standard gauge railroad in operation now, and doing a splendid business in logging alone, equipped with an H. K. Porter locomotive and three logging cars. The road is an imperative necessity, and will be certainly built in the near future by some one, and the parties who build it fi st will make a splendid thing out of it. Valuable franchises can be obtained. For full particulars address JOHN B. CRILLY, Tampa, Fla.

#### COUTHERN LOAN 🗀 = BOND INVESTMENTS.

[Under this bead the MANUFACTURERS' RECORD with blish announcements, not exceeding ONE INCH. for inner free of charge. Only efferings of real estate for inner free of charge. Only efferings of real estate for inner free of the charge of the charge of the pecific statement of amount, time, rate of interest acturity, will receive free innertions in this column.]

\$1,000 TO \$2,000 WANTED FOR five years; interest 7\$ security mortgage on 500 acres improved land. On this property is a steam saw and corn mill; also popular standing, and every railroad convenience. Three and one-half miles north of the city of Lynchburg. On Richmond & Danville Rail oad. Could not be bought for \$10,000. Address PHŒ-NIX STEAM MILLS, Harris Creek, Amherst County, Va.

WANTED 86,000 FOR THREE OR FIVE years at 75 interest on first mortgage on years at 75 interest on first mottgage on valuable improved business property in Birming-ham. Worth \$25,000 and renting for \$1.800 per annum. Address 'ATTORNEY.' Room 2, over Jefferson County Savings Bank, Birmingham, Ala.

WANTED.-\$10,000 FOR TEN YEARS; interest 6\$; payable semi-annually. Secured by first mortgage on centrally located improved business property in Salem, Va. valued at \$20,000. Part of property occupied, and is paying a monthly rent of \$240. Investigation requested. Full information upon application to T. TURNER SMITH, Salem, Va.

WANTED.—88,000 FOR TWO YEARS: int-rest 85; payable semi-annually. Secured by deed of trust (only encumbrance on the property) on 60 desirable business and residence lots at New Castle, Va. Similar property in the town rold for an average of \$500 per lot. Investigation will show this to be ample security and a first-class investment. Address BOX 345, Salem, Va.

WANTED.—820,000 FOR FIVE OR TEN years at 65; secured by first mortgage on valuable school property in Virginia which cost nearly twice the amount desired. School in successful operation and a paying enterprise. For particulars address "SEMINARY," care of MANUFACTURERS' RECORD.

WANTED \$100,000 TO BUILD 200 houses. Security, first mortgage, 105 guaranteed, payable semi-annually. Address L. C CHANCE, Manager, Cumberland Gap, Tenn.

MONEY WANTED.—105 GUARANTEED by first mortgages on improved property. Address L. C. CHANCE, Manager, Cumberland Gap, Tenn.

8 GOLD WATER WORKS BONDS. THE 9 GOLD WATER WORKS BONDS. THE undersigned offers for sale, at par and accrued interest, \$ 5 500 in 8 9 gold bonds, secured by first mortigage, in trust, on water works which cost more than double the amount of its bonded debt, and earned in 1800 1854 on its capital stock, besides expenses and interest on bonds. Principal and interest payable in gold in New York; the interest semi-annually. An unquestionably safe and desirable investment. Full details on application. WM. P. PARRISH, Mills Bullding, 35 Wall Street, New York.

# More Capital Wanted.

One of the best equipped plants in the South, doing a prosperous business in the manufacture of ENGINES, SAW MILLS and GENERAL WOODWORKING MACHID-ERY, wants to increase its capital. The concern is well advertised, is widely and favorably known and has been pre-em nently successful. The growth of its business makes necessary an increase in the capacity of the works and for that purpose the owners want to add \$60,000 to the present capital. Address

"CAPITAL,"

Care of MANUFACTURERS' RECORD.

#### WANTED.

Lo ation for Handle Factory Working 50 to 60 hands and co nually 3,000 cords of white hickory

CAPITALISTS

take half interest in poperty of 60 acr ith bast farnace and rolling mill, on true ie railway and controlling so almost unlimit ater-power. Fine location for large flour

Loan of \$10,000 to \$15,000 n established manufactu ing plant worth \$10 no, doing good business and free of all e. cum

ED. N. KIRK TALCOTT, C. E., 57 Broadway, New York.

WANTED.

# Mineral Property and Town Site.

We have a special inquiry for a large boundar f well-timbered mineral land, with iron, coa ad lime in cheap juxtaposition, and suitable fo great manufacturing center.

CABELL & MOSELEY,

LANDS, SECURITIES & INDUSTRIAL ENTERPRISES, 15 Whitehall Street. Room 18.

NEW YORK.

# JOHN L. WILLIAMS & SON,

BANKERS.

Oar Manual of Investments for 1800, the largest work of the kind published by any banking house in America, (406 pages, octavo, cloth), may be had without charge by clients, correspondents and those expecting to do business with us; by others at \$2 per copy.

#### Richmond Stock Exchange Quotations.

Reported by JOHN L. WILLIAMS & SON, Bankers, Richmond.

RICHMOND, VA., September 22, 1891.

BID.	SKED.
North Carolina 4's, 1910 98	99
North Carolina 6's, 1919 124	0.6
Virginia New 3's, 1932 64	65
Danville 5's 99	**
Lynchburg, Va., 5'8, 1915102	
Petersburg, Va., 5's, 1918104	
Norfolk, Va., 5's, 1911 106	0.0
Richmond, Va., 5'8, 1922107	0.0
Atlanta & Charlotte Ry., 1st 7's, 1907117%	6.0
Atlanta & Charlotte Gt'd 6's, 1900 1011/6	0.0
Char., Col. & Aug. R.R. Gen. 6's, 1932.100	104
Georgia Pacific Ry. 1st 6's, 19221001/2	102
Georgia Pacific 2d 5's, 1923 58	60
Ga. Pacific Incomes, 5's 11	15
Petersburg Railroad Stock 78	80
Petersburg Railroad Class A 5's, 1926. 105	**
Petersburg Railroad Class B 6's, 1926-107	
Rich. & Danville R. R. Gold 6's, 1915, 107	169
West. N. Car. R. R. Gt'd 6's, 1914 961/4	971/2
West. N. Car. 1st 6's, C. 1914 89	94
Northwestern N. Car. R. R. 1st 6's	96
Atlanta & Charlotte R. R. Stock 80	91
North Carolina Railroad Stock	
R. F. & Pot. R.R. Div'd Obligations 1131/2	113%
Virginia Midland Railway Stock	**3.20
Sloss Iron & Steel Co. Stock	**
Sloss Iron & Steel Co. 1st 6's, 1917	**
Sloss Iron & Steel Co. 2d 6's, 1918	**

## **ALEX. BROWN & SONS**

RSTABLISHED 1811. Cor. Baltimore and Calvert Streets, BALTIMORE, MD.

BROWN BROTHERS & CO.

New York, Philadelphia and Boston.

Foreign and Domestic Bankers. Saltimore, New York and Philadelphia

Stock Exchanges.

(Private wire between Baltimore, Boston, Philadelphia and New York.)
Interest allowed on deposits of Banks, Bankers, Corporations and Individuals (by agreement). Baltroad, Municipal & other Loans Negotiated.

#### BUY AND SELL BILLS OF EXCHANGE

on Great Britain and Ireland, France, Germany, Holland, British West Indies and other foreign

Issue Commercial and Travelers' Letters of Credit.

IN STERLING, available in any part of world; and IN DOLLARS, for use in country, Canada, Mexico, the West Indies South America.

ake Cable and Telegraphic Transfer of Money.

Drafts Collected in all parts of the World.

BROWN, SHIPLEY & CO., LONDON.

# English Money Syndicate.

## MOREHEAD & OGDEN BANKERS.

No. 48 Exchange Place, New York.

TRANSAOT A GENERAL BANKING BUSINESS.

Government, State, Railway, Municipal and

Government, State, Railway, Municipal and County Bonds Bought and Sold.
Make Collections of Drafts, Notes, Dividends and Coupons, throughout the United States and Canada. Buy and Sell Bills of Exchange.
Receive Deposits Subject to Check at Sight. Allow Interest on Daily Balances.
Accounts of Banks, Bankers, Corporations and Individuals Solicited.
Act as Fiscal Agents for States, Cities, Counties

Act as Fiscal Agents for States, Cities, Counties

highest English connections, to negotiate the sale of American manu-facturing and other properties in England. prepared, through the



Fine Office Furniture and Folding Beds. Brass and Wire Work. 215 Wabash Av A. H. Andrews & Co., Chicago.

#### PROPOSALS.

BIDS ARE SOLICITED until October 1st, 891, to furnish Mississippi State Lunatic Asylum at Jackson, Miss., with 200 single beds, with privilege of 200 more within four months at same price, of wrought or wrought pipe iron, by October 15th, 1891. A sample of bed to be sent with bid, and to be returned at bid/er's expense. Address R. F. McGILL Jackson, Miss.

Address R. F. McGILL Iackson, Miss.

FALED PROPOSALS will be received at the office of the Supervising Architect, Treasury Department, Washington, D. C., until a o'clock P. M. on the 16th day of October, 1891, for all the labor and materials required for the Approaches to the U. S. Postofice, &c., building at Dayton, Ohio, in accordance with the drawing and specification, copies of which may be had on application at this office or the office of the Custodian at Dayton, Ohio. Each bid must be accompani day a certified check for a sum not less than 2\( \frac{1}{2} \) of the amount of the proposal. The Department will reject all bids received after the time herein stated for opening the same, also bids which do not comply strictly with all the requirements of this invitation. Proposals must be enclosed in envelopes, sealed and marked, "Proposal for the Approaches to the U. S. Postoffice, &c., building at Dayton, Ohio," and addressed to W. J. ED-BROOKE, Supervising Architect.

September 21. 89.

EALED PROPOSALS will be received at the

BROOKE, Supervising Architect.

September 21. 89.

Selled PROPOSALS will b-received at the office of the Supervising Architect Treasury Department, Washington, D. C., until 2 o'clock P. M. on the 9th day of October, 1891, for all the labor and materials required for putting in place complete the Low-pressure, Return-circulation, Steam Heating and Ventilating Apparatus for the U. S. Postoffice Building at Kalamazoo, Mich., in accordance with drawings and specification, copies of which may be had at this office or the office of the Superintendent at Kalamazoo, Mich. Bids will also be considered for any other system of heating and ventilating in fleu of the above, and parties proposing to supply such must subm t with their proposal plans and full specification for same Each bid must be acc mapanied by a certified check for a sum not less than 2\$ of the amount of the proposal. The Department will reject all bids received after the time herein stated for opening the same, also bids which do not comply strictly with all the requirements and meaning of this invitation or up on any heating and ventilating apparatus not s. tisfactory to this Department. Proposals must be enclosed in envelopes, sealed and marked 'Proposa' for the Low-pressure, Return-circulation, Steam Heating and Ventilating Apparatus for otherwise, as the case may be for the U. S. Postoffice Building at Kalamazoo Mich.," and addressed to W. J. EDBROOKE, Supervising Architect. September 9, 891.

INIJED STATES ENGINEER OFFICE,

Architect. September 9, 891.

WILLED STATES ENGINEER OFFICE, WILMINGTON, N. C., September 5, 1891.

SEALED PROPOSALS for \$75,000 of dredging in Ocracoke Inlet, N. C., wil be received at this office until 11 M. on Octob r 20, 1891. The attention of bitders is specially invited to Acts of Congress, approved 26th February, 1885, and 23d February, 1887, volume 23, page 312, and volume 24, page 414, Statutes at Large. All information will be furnished by W. H. BIXBY, Captain of Engineers.

JNO. C. ROBERTSON.

18 Times Building,

RICHMOMD, VA.

Large tracts of timber and mineral lands for sale throughout the South. Correspondence

# BOOKS

by WEST'S New Original-ENTRY LEDGER

Make the same entry but once. A Ledger in place of a full set of books. Convenient forms for all entries. Easily applied, simple, saves time. West's Self-Proving Ralange logates every error. Self. WOLCOTT & WEST. SYRACUSE. N. Y

## MILL

FOR SALE

offer to sell one of our New Saw Mills, ed in the best Timber Belt of Georgia.

THE BOONE LUMBER CO.

WILL BOND OR SELL

# 400 16 C. P. Electric Light Plant,

ith a good Insurance business, paying \$3,000 \$4,000 per year, net. WILL SELL FOR, 000; one-third cash, balance to suit pur-aser. This plant is located in one of the best ints in Georgia.

GEO. E. HOPPIE,

ATLANTA, GA.

FOR SALE.

#### CARNET MINE

And 2,000 acres of land, covered with large Oaks, Poplars, Che, thuts, Hickory, &c. Garnets for commercial use in large quantities are found on this property. Also Ochre and Corundum are found on it. The garnets are easy of access and easily worked, Located at Shooting Creek, Clay County, North Carolina. Also 600 acres or more of fine Hardwood Timber and Iron Ore Lands in Macon County, North Carolina. The iron assays over 63 magnetic ore. Titles perfect, Price \$5 per acre Investors at home or abroad desiring good iron and timber lands personally selected by me in the richest section of Western North Carolina, can address

#### ARTHUR STEWART,

2042 N. Tenth Street, PHILADELPHIA, PA.

# A Splendid Bargain.

I have for sale THIRTY ACRES of Land, just 11/2 miles from the Postoffice and center of the city, at the very low price of \$700 per acre; 1/4 cash, and balance on time at 8 per cent. interest. This property is immediately on the Electric Car Line to Riverside Park, and may be divided into 200 residence lots, worth on an average of \$200 each.

Property will be withdrawn from the market after 1st October next if not sold.

#### ELIAS EDMONDS.

Office, Room 22 French Building,

SAN ANTONIO, TEXAS.

Rare Chance for a Bargain.

AUCTION.

The entire plant of the BESSEMER ROLL-ING MILLS will be sold under a decree of the Court at public suction to the highest bidder on October 14, 1891, in front of the Courthouse in Birmingham, Alabama,

Birmingham, Alabama.
The plant is situated at Bessemer, Alabama.
The mill was built in 1887. The main building is entirely of iron, and contains:
24 Single Puddling Furnaces.
1 Scrap Furnace.
1 Pan Furnace.
2 Softening Furnaces.
1 Erx Annealing Furnace.
3 Siemens Martin Gas Regenerating Heating Furnaces.

3 Siemens man-Furnaces. 10 Producers. 5 Train Rolls, 20-inch muck, 22-inch sheet, 26-inch plate, 8 inch guide and 16-inch bar. Sheet and Plate Mills, built by A. Garrison Foundry Co. Muck Bar and Guide Mills, by Lewis Foundry

Muck Bar and Guide Mills, by Lewis Foundry Co. Pittsburg.

About 200 Rolls for making flats, rounds, an-gles and 'ails.

The Mill is supplied with 7 Shears
The Engines were built by L. Spence, Martins Ferry, Ohio, and W. Tod & Co., Youngstown, Ohio.

There are two large warehouses attached to the till, and machine shop fully equipped with rolls,

There are two large warehouses attached to the mill, and machine shop fully equipped with rolls, lathes, &c.

The mill possesses exceptional shipping facilities, six lines of railways running into its yards, is located within a quarter of a mile of two furnaces and half a mile of three other furnaces of the DeBardeleben Coal & Iron Co., in fuel blast, enabling it to procare Iron without paying freight. Contracts for coal for the mill can be made for a term of years at \$1.010 \$1.30 per ton delivered.

The plant was thoroughly overhauled in October. 1890, and new heating furnaces erected of the most improved design.

The terms of sale are cash, but the property being sold under, foreclosure of mortgage, the purchaser has a right to discount his bid in bonds secured by the mortgage, which he could hold.

For further information write L. E. BRUNS, Bessemer, Alabama, or MORRIS ADLER, Birmingham, Alabama.

#### MINE.

A loan of \$20,000 wanted to put the necessary machinery on one of the richest free milling quartz mines in California. The money will be refunded in one year. As a bonus, will give one-quarter of the capital stock of the Co. This is a bonanza. No Brokers. N. K. JOYCE,

168 Washington Street,

CHICAGO, ILL

#### Important to All Corporations.

Every Incorporated Company should USE KAUFFMAN'S Copyrighted Forms of Improved Record Book, Transfer Book, Stock Register, Stock Ledger and other valuable Books. Write for Descriptive Circular. Address

CORPORATION BOOK CO. om 25, Lucas Bidg., 1226 Chestaut St., Philadelphia, Pa.

# SOUTHERN

## INFORMATION BUREAU.

F. C. GRIFFITH, Genl. Manager.

RELIABLE and RESPONSIBLE AGENTS for any Southern Interest, whether Land, Iron, Coal Cotton, Orange, Raitroad, Phosphate Hotel or Exposition. Also Mailing, Advertising and Bone Placing. N. E., Agent for Southern Exposition Raleigh, N. C., October and November.

541 EXCHANGE BUILDING.

STATE STREET,

BOSTON, MASS.

Members Baltimore Stock Exchange.

## MIDDENDORF, OLIVER & CO. BANKERS AND BROKERS,

No. 213 E. Cerman Street, [KEYSER BUILDING]

Baltimore, Md.

Stoc's and Bonds Bought and Sold on Commission nvestment Loans. Dealers in Foreign Exchange. ission. Special attention given to Municipal and other ge. Drafts on Europe and Letters of Credit furnished

# Manufacturing Plants Wanted.

I would be glad to correspond with parties who wish to move Manufacturing Plants already established, or to establish new plants in the rapidly developing iron and coal regions of the South. I can offer liberal inducements in the way of free sites, subscription to capital stock, or secured loans at low rates of interest, with choice of location, Address

ED. N. KIRK TALCOTT, C. E.

57 Broadway, New York.

## MANUFACTURERS

Desiring to Locate in the South should Correspond with me.

Handsome Sites for Residences. Investments Made Which Will Pay Handsome Profits.

PARKE L. POINDEXTER, Real Estate Broker,

Correspondence Solicited.

L. BRECKINRIDGE CABELL, Formerly of Virginia.

LONDON OFFICE, 18 Charterhouse St., E. C.

NORFOLK, VA.

WILLIAM MOSMLEY, U.S. Geological Surveyor.

CABELL & MOSELEY,

DEALERS IN

## Lands, Securities, and Industrial Enterprises, Room 17, Kemble Building

15 to 25 Whitehall Street, New York.

Will sell, exchange for salable merchandise, mortgage for necessary funds for working expenses, or make working arrangement on shares, commission or royalty, 300 acres of the best phosphate

or make working arrangement on shares, commission or royalty, 5000 acres of the best phosphate land in Florida situated on a navigable river and showing by analysis from 72 to 84 per centum of phosphate of lime 13 pits sunk from 7 to 35 feet fail to reach the bottom of the bed.

Also a gold property in North Carolina of 300 acres, well watered and timbered land, on which are 11 fissure veins from one to four feet wide and each about a mile long, ore assaying \$33 per ton.

Will be sold outright, mortgaged for necessary working expenses, or arrangement will be made with suitable parties to work on shares, commissions, royalty or otherwise.

On hand for sale, a choice selection of properties, consisting of agricultural, mineral and timber

On hand for sale, a choice selection of properties, consisting of agricultural, mineral and timber lands; gold, silver, iron, coal and mica mises; breweries, mills, factories, textile and other manufactories; developed, undeveloped and partly developed industrial enterprises, and county, municipal and corporate securities.

# COTTON COMPRESS

Is sold on the following GUARANTEE.



Equal to Any, COST of Plant, Less than Any, EXPENSE of Bunning. Half of Any Pirst-Class Compress. Correspondence solicited.

THE DAMPBELL Cotton Compress Co.. 100, 111, 113 and 118 E. FRONT ST.,

CINCINNATI, O.

## CONSTRUCTION EPARTMENT.

E PUBLISH, every week, a list of every new factory, of whatever kind, projected anywhere In the South; every railroad undertaken, and every mining company organized. This information is always fresh, and, by enabling manufacturers to correspond with the projectors of such enterprises before their supplies of machinery have been purchased, is of great value. Manufacturers will find it to their Interest to read this department carefully each week.

Means machinery is wanted, particulars of which will be found in "Machinery Wanted

In correspondence relating to matters reported in this paper, it will be a favor if it is stated that the information was gained from the MANUFACTURERS' RECORD.

niston-Iron Furnace.- The Woodstock Co. is now having estimates prepared for Iding its No. 2 iron furnace, recently damaged by fire.

Attalla-Foundry and Machine Shops ansford, of Birmingnam, has let contract for the construction of his iron foundry and machine shop, lately reported, to W. W. Garrett, of Fort

Choccolocco-Bridge,-Frank Morris has received contract to construct a bridge acr Choccolocco creek, near Choccolocco.

Collinsville-Water Works.-The construction of a system of water works is talked of.

Courtland-Publishing.-E. E. Thickstuh is endeavoring to organize a stock company for the ose of publishing a newspaper.

Danville-Gas and Oil Wells.-A stock co pany is reported as having been organized for the purpose of sinking oil and gas wells.

Fort Deposit-Ginnery,-Clifford Sharp has, it is stated, established a cotton ginnery.

Fort Payne-Land Improvement and Saw Mill. Hardy Dobbs is reported as having established a saw mill and as having purchased a tract of land at Leths, which he will lay off into town

Harrison-Flour Mill.-Ryan Bros. & Smiley will erect, it is reported, a flour mill.

Huntsville-Cotton, Woolen and Silk Mill.-G. S. Roche, of Stonington, Cor to remove to Huntsville his m ture of cotton, wool and silk. Conn, is reported s mill for the manufa

Huntsville - Bleachery. - W. B. Nanson, of ewiston, Me., (present address, Columbus, Ga) proposes the organization of a \$100,000 stock company to erect the cloth bleachery recently mentioned; the plant to be three stories high fitted with latest improved machinery, and have a weekly capacity of 10,000 pounds of goods.

Jacksonville-Lead and Silver Mines.-W. L Allison, of Dale county, Ga., and S. D. Lanham are reported as developing lead and silver mine on the S. Z. Dickie property.

Ozark-Water Works .- The date of receiving bids for the construction of the water recently mentioned, has been extended to October 1st. T. J. Fain, city clerk.\*

Selma-Cotton Gin.-O. F. Childers huilt bis cotton mill reported last we

Stevenson-Saw Mill .- A saw mill is reported

as to be erected at McMahan's Cove.

Tuscaloosa-Furniture Factory, Foundry a Machine Shon.—As reported in our last issue the J. Snow Hardware Co. has erected an iron foun-dry, machine shop and furniture factory.

#### ARKANSAS.

Arkadelphia-Cotton Mill.-A propo en made for the Arkansas State Alliance to take a controlling interest in the Arkadelphia Cotton Mills, consisting of \$30,000 of ur scribed stock. Endeavors will be made to mulate plans for accepting same.

Batesville—Electric-light Plant and Ice Fac-ory.—Fred Balcom, of Chattanooga, Tenn., will, is stated, make a proposition for the establish-nent of an electric-light plant and ice factory in Batesville.

Pine Bluff - Ice Factory and Cold-storage Plant .- J. P. Angell and others expect to estab lish a 15 ton ice factory and cold-storage plant.

#### FLORIDA.

Anthony-Phosphate Mines -C. W. Lindne of Clay Center, Kan., will develop phosphate mines at Anthony; will probably organize stock

Bartow—Saw Mill.—The Bartow Steam Wo Yard is building a wood-yard.\*

Bluff Springs-Canning Factory.-The stock company to establish a canning factory, men ed last week as talked of, has been organized with S. Timney as president Bluff Springs Canning Co.

Chipoli-Lumber Mill.-C. W. Hagerman, H. Squires and A. D. McKinnon have incorpoola Lumber Co. with a capital stock of \$100,000.

Dunnellon-Phosphate Mines - The Dunnellon Phosphate Co. is reported as to put in new machinery at its phosphate mines.

Fernandina—Brush Factory, -- A\$200,000 or \$300 - 000 company will be organized, it is stated to operate a palmetto brush and brush fibre factory.

Florida-Phosphate Mines.-John Chipman, of Ocala, mentioned last week (under Luraville), will develop phosphate mines in Florida, but has ot yet decided at what point.

Fort Meade-Box Factory.--White & Adams recting, as recently reported, an orange

Fort Meade-Bridge.-W. B. Gardner will receive bids until October 9th for building a new bridge across Bowlegs creek. Plans and specifi-cations can be had on application.

Gainesville-Water Works.-It is reported that the city has let contract to Hartford, Hebert & Co., of Chattanooga, Tenn., for the construction of the water works lately reported.

Green Cove Springs-Water Works.-A stock ompany has, it is stated, been organized to construct the water works lately mentioned.

Greenville-Cotton Gin -M. W. Linton has recently rebuilt his cotton gin.

Jacksonville-Cigar Factory.-C.O. reported as to erect a cigar factory.

Jacksonville-Dray Factory.-Geter Bros are are reported as enlarging their blacksm in order to start the manufacture of drays.

Jacksonville—Saw Mill.—Onley & Love har out new machinery in their saw mill, as reporte

Key West-Electric-light Plant -The Key West Gas & Electric Light Co. is reported as putting new machinery in its electric-light plant.

Lake City-Bucket and Tub Factory.-L. W. Johnson may establish the bucket and tub factory entioned last week.

Lake City-Fertilizer Factory.-A. B. Hart establish the fertilizer factory mentioned last week; capital is stated to be \$100,000.

Lake City-Phosphate Plant -The Lake City Land & Timber Co. will put in a phosphate-mi ing plant.

Leesburg-Telepl Telephone Co. has been incorporated with A. J. Phares, president; J. F. Richmond, vice president, and W. F. Johns, secretary; its purpose to construct a telephone line from Leesburg Yallaka. The capital stock is \$7,000.

Milton—Saw and Planing Mill.—J. A. Chaffin & Co. have resumed operations at their saw mill, as stated last week, after improving same; they are also erecting a planing mill.

Oakland—Packing-house.—Hunt, Richardson & Co. will, it is reported, erect a packing-house. Ocala-Ice Factory.-The East Florida Ice

Manufacturing Co. has put in a new 80 horsepower boiler; will also put in 15-ton ice machine during the winter

Orlando-Street Improvement.-It has been decided by popular vote to issue the \$15,000 of street improvement bonds lately mentioned. The mayor can give further particulars

Pensacola-Steamboat Line.-It is rumored that a company will be organized to establish a steam-tooat line from Pensacola to Mexico and South America.

Sparr-Phosphate Mines.-R. H. and W. T. Adams, E. C. Gordon, W. M. Ross and C. W. Crenshaw have incorporated the Plate Rock Phosphate Co, recently reported as developing phosphate mines. The capital stock is \$119,0

Tallahassee-Phosphate Mines.-The Florida Pebble Phosphate Co. will, it is reported, increase its capital stock to \$100,000 by the issuance of \$50, its capital stock to \$100 000 additional stock.

#### GEORGIA.

Abbeville-Brick Works.-It is reported that a stock company has been organized to purchas and operate the Ocmulgee Brick Works

Acworth—Gold Mine.—The Acworth Land Co. s now developing the Tippen gold mine in Cherokee county, as reported in our last issue.

Atlanta-Water Works .- The contract for the ew water works mains is to be let to the Howard-Harrison Iron Co., of Bessemer, Ala.

pany previously reported as to be organized for the purpose of erecting a canning factory will have a capital stock of \$25,000. J. J. Duffy can give information.

Atlanta-Electric-power Plant.-The Atlanta Consolidated Street Railway Co. is reported as to put additional machinery in its electric-power

Atlanta-Cushion and Top Factory.-nta Carriage & Hardware Co. has, as riage and hardware factory the manufacture of carriage cushions and tops.

Boston-Phosphate Mines and Works. Georgia Phosphate & Mining Co. is building phosphate works and developing mines; its plant will have a daily capacity of 45 tons

Brunswick-Marine Railway.-T. W. Dexter, anager of the Brunswick Foundry, Machine & facturing Co., states that his company will build a marine railway.

Canton-Grist Mill, Gin, etc.-J. W. and J. D. ohnson have, it is stated, leased and will operate the flour mill, grist mill and cotton gin of J. M

Cedartown-Cotton Mill.-Work is now in progress on the buildings for Charles Roberts' on mill, recently reported as to be removed to Cedartown from Chester, Pa. It is reported that a 60-loom weaving mill will be operated in connection with this plant.

Dahlonega—Copper Mines.—It is reported that a tract of land on the Chestatee river containing copper deposits will be sold to a company that will develop same.

Elberton-Electric-light Plant and Water Works in the legislature A bill has been introduced authorizing the issuance of \$40,000 of bonds for the erection of an electric-light plant and construction of a system of water works. The mayor can give particulars.

Hoschton-Wagon Factory, etc.-I. H. Lott is reported as to increase the capacity of his black smith and repair shops and wagon factory.

-Cotton Mill.-The erection of a cotton mill is talked of.

Huntsville-Bleachery.-A \$500,000 stock com-pany has, it is stated, been organized to erect a bleachery near Huntsville.

Macon-Engraving Works.-B. W. Smith and others have organized a stock company to estab hoto-engraving works, as reported last It is known as the Macon Photo-Engrav-

Burke and C. Canning have incorporated the Grier Almanac & Medicine Co. to publish almanacs, procure an capital stock is \$60,00 and sell medicines, etc. The

Milledgeville-Bridge,-G. H. Crafts & Co., of Atlanta, have received contract to build the iron bridge over Fishing creek, recently mentioned. Work on same has commenced.

Newnan-Buggy and Wagon Factory.—The Newnan Buggy Co. has amended its charter in-creasing its capital stock to \$26,000.

Savannah—Water power Development.—A syndicate has purchased 2,000 acres of land at the falls of the Canoochee river, 25 miles from Savannah, and proposes to develop the water-power of converting it first into electricity and the aitting to the city by wire.

Savannah - Box, Furniture and Trunk Factory, etc.—The Forest City Manufacturing Co., re-ported last week as chartered, will be organized with a capital of \$25,000 and establish box, furniture, bucket, tub and trunk factory. For further particulars address M. Prager.\*

Tallapoosa—Iron Foundry and Machine Shop Sutherland & Blackman are reported as erecting an addition to and as to put new machinery in their iron foundry and machine shop.

Tallapoosa - Cabinet Factory .- The Tallapoo Cabinet Co. has, it is stated, built an addition its cabinet factory, and will put in new machine

#### KENTUCKY.

Ashland-Furniture Factory.-Mr. Leonard, of the Plain City Furniture Co., of P. ain City, Obio, is investigating with a view of removing the pany's furniture factory to Ashland.

Covington-Lock, Safe, etc., Works.-L. J Hunter, G. W. Evans and H. C. Hunter have in rporated the Lytle Safe & Lock Co. to ma safes, vaults, locks, etc. The authorized capital stock is \$100,0

Ford - Planing Mill .- The Ford Lumber Co. is ebuilding its planing mill, burned recently

Lair-Lead Mine.-Chicago (III) capitalists

lead mine, mentioned last week. T. B. Smith, of Cynthiana, can give informatio

Maysville-Cigar Factory.-George Ort and Azariah Thomas will, it is stated, start a cigar factory.

Maysville—Steel Plant—W. H. Harris, J. O. Lee, J. M. Frazee and others have incorporated the Maysville Fuel, Light & Steel Co. with a capital stock of \$100,000 for the purpose of erecting a steel plant.

Newport-Harness Factory.-L. G. Joynes has. it is stated, started the manufacture of harr

Newport-Lumber Mills, etc.-J. D. Morgan and Z. H. Cook have incorporated the Glover Lumber Co. to manufacture lumber, operate sam mills, etc. The capital stock is \$40,000.

Newport-Culvert - C. B. Hayward will receive sealed proposals until September 28 for the construction of a stone culvert with end wall, tile pipe sewer, etc. A certified check for \$50 must accompany each bid.

Owenshoro-Tobacco Factory - Kunz & O'Flee ill, it is stated, start a tobacco factory

Winchester-Steam Laundry -C. F. Klein has started the steam laundry mentioned last week.

Winchester-Ice Factory.-J. P. Cassiday has

#### LOUISIANA.

Alexander—Iron Foundry and Saw Mill.—The Rush Bros, of Atlanta, Texas, have, it is reported, nurchased site at Alexandria from Bringhurst & Roberts on which they will erect an ite dry and saw mill.

Lafourche Crossing-Sugar Refinery .- The La-

Lake Providence-Ice Factory.-Mr. Hamley, ohn Williams and others have incorporated the Lake Providence Ice Manufacturing Co. Limited. for the purpose of manufacturing ice.

New Orleans-Sash Factory.- E Garrier has d the city council for authority

New Orleans-Soap Factory.-Emile Jarnicu will, it is reported, establish a

#### MARYLAND.

Baltimore.-J. E. Ingraham, C. E Mason, J. D. Blake and others have incorporated the Mary-and Chip Beef Co. with a capital stock of \$50,000.

Baltimore—Picture-frame Factory.—Schneider & Fuchs, previously reported as to erect a new picture-frame factory, have completed same. The building has a depth of 130 feet, is 5 stories high and has an annex 35x50 feet.

Baltimore-Bridge,-The city council has passed a resolution to appropriate \$35,000 for the co struction of a bridge over Jones's falls on Lexing-ton street. The mayor can be addressed for further particulars

Belair-Carriage Factory.-The Bulett Carriage Co. will probably rebuild its carriage factory, reported in this issue as burned.

Cumberland—Cement Works.—The Cumbland & Potomac Cement Co. has, it is stated, creased its capital stock from \$25,000 to \$50,000

Parsonsburgh-Gas Well.-G. H. Parsons has

Towson-Electric-light Plant.-Joseph Schrieber, representing an electric-light company of South Bend, Ind, is investigating relative to the establishment in Towson of an electric-light plant.

Union Bridge-Handle Factory.-The citizens are endeavoring to organize a stock con nanufacture the patent brush handle of C. F. Myers, of McKinstry's Mills, recently me

Washington, D. C .- Bridge .- A report is curwasnington, D. C.—Bridge.—A report is cur-rent that a new bill, providing for the construc-tion of a bridge across the Potomac river from Washington to Arlington, will be introduced in the next Congress. F. A. Clay, of Cleveland, Ohio, can, if report is true, give information.

#### MISSISSIPPI.

Greenville—Cotton Compress.—The Greenville Cotton Press Association, reported in our last ssue as incorporated, is a consolidation of the Greenville Compress & Warehouse Co. and the Planters' Compress & Warehouse Co., both ope ating cotton compresses.

Meridian-Shoe Factory.-Eastern parties are in correspondence with Mark Driver relative to the establishment of a shoe factory in Meridian.

Yazoo City-Ice Factory.-Endeavors are now being made to organize a stock company to the ice factory lately mentioned.

#### NORTH CAROLINA.

Beaufort--Canning Factory.-H. R. Hunt, of New London, Conn.; T. L. Swinton and others will erect an oyster canni ng factory, as reported

Blue Wing-Iron Mines.-W. Raker & Co. will

Charlotte Bridge —S. Wittkowsky has lately submitted to the Chamber of Commerce a proposition to build a bridge across the Catawba river at two or more points, connecting Mecklenburg county with York, Lincoln and Gaston counties.

Elkin—Cotton Mill.—The Elkin Manufacturing Co. will, as stated last week, put in additional machinery to increase capacity of its cotton mill.\*

=

Fayetteville—Steam Laundry,—The stock company, previously mentioned as having been organized by John Underwood and others to erect a steam laundry, has been incorporated as the Fayetteville Steam Laundry Co.

ganized by John Underwood and others to erect a steam laundry, has been incorporated as the Fayetteville Steam Laundry Co. Greenville—Tobacco Prizery.—A tobacco manufacturing company, of Winaton, is corresponding relative to the erection of a tobacco prizery at Greenville.

Leaksville— Tobacco-stemmer Factory — The Guerrant Cable Tobacco Stemmer Co, has been incorporated for the purpose of introducing the Guerrant tobacco stemmer.

Maiden - Factory. - Martin Carpenter and others are reported as erecting a factory.

Millwood—Gold Mines, etc.—The Monarch Gold Mining Co., previously reported as organized at Knoxville, Tenn., is developing a gold mine in Rutherford county, near Millwood; stamp mill has been erected.

Mocksville—Planing Mill, etc.—Rice Bro\*., of Woodleaf, will erect a planing mill at Mocksville, as recently reported; later on they expect to put in door and sash machinery.\*

Mt. Olive—Saw Mill.—Lolar & Mitchell have, it is reported, erected a saw mill. New Berne—Water Works.—The city will con-

New Berne—Water Works.—The city will contract for the construction of water works probably within 30 days. For particulars address the mayor.

New Berne-Barrel and Box Factory.-J. M. White will, it is reported, erect the barrel and box factory lately mentioned.

Raleigh—Sash, Door and Blind, etc., Factory.— The Briggs Building Manufacturing Co. has been incorporated with Anderson Betts as president, and J. D. Briggs, secretary, to manufacture sash, doors, blinds, etc. The capital stock is \$12,000.

Roxboro—Tobacco Factory.—A. S. De Vlarming, of Durham, will, it is stated, lease and operate a tobacco factory in Roxboro.

Salisbury-Bottling Works.-Mr. Schultz, of Augusta, Ga., will establish beer bottling works in Salisbury.

Shelby-Gas Works.—The city has granted a franchise to erect gas works to the Carolina Heat & Light Co., of Danville, Va.

Statesville - Tobacco Factory.-H. Clark & Sons will erect a tobacco factory.\*

Statesville—Tobacco Factory.—E. J. & A. G. Stafford, reported last week, state that they have purchased the factory formerly used by Irwin & Paston, and will start their tobacco factory in same.\*

Statesville—Tobacco Factory.—O. L. Williams, of Farmington, lately mentioned, will probably erect a tobacco factory in Statesville.

Waynesville—Woodworking Factory.—A \$10,000 woodworking factory is reported as to be established.

Waynesville—Grist Mill and Gin.—J. E. Atkins has, it is stated, erected a grist mill and cotton gin near Waynesville.

#### SOUTH CAROLINA.

Bamberg-Brick Works.—A company has been organized and started brick works, as reported last week; operates as the Bamberg Brick Works.

Charleston—Fertilizer Factory.—The Piedmont Guano Co., recently reported as having increased capital stock to \$25,000, will put new machinery in its fertilizer factory.

Clark's Hill-Canning Factory.-T. B Bailey will probably establish a canning factory.

Columbia - Candy Factory. - The Columbia Candy Co. will, it is stated, increase the capacity of its candy factory.

Easley-Creamery-Berry & Bradley have, it is stated, put new machinery in and enlarged their creamery.

Greenwood-Electric-light Plant.—The Greenwood Oil Mill will put in an electric-light plant, and contemplates extending same to light the city.

Marion-Land Improvement.— The Marion Improvement Co. has laid off into building lots and placed on the market the Buck property, which it recently purchased.

Pelham-Cotton Mills.—The Pelham Mills is reported as having enlarged and as putting new machinery in its cotton mills.

Rock Hill-Basket Factory.—A proposition has been made for the establishment of a basket factory at Rock Hill.

Summerville-Electric-light Plant.—An electric-light plant will be put in the Pine Forest Inn. Summerville — E'ectric-light Plant. — G. A. Wagener and others contemplate organizing the stock com; any to erect an electric-light plant, mentioned last week,

#### TENNESSEE.

Bristol—Publishing.—The Bristol Courier Co. has been organized with a capital stock of \$20,000 to continue the publication of the Bristol Courier.

Bristol—Caudy Factory.—It is reported that a party is investigating Bristol's advantages for a candy factory.

Chattanooga—Bridge.—Farleigh & Betts, 117 Richardson Block, will receive proposals until October 1 for the construction of a highway bridge across Falling Water creek, on the Washington Road.

Chattanooga—Iron Mines.—A. T. Ham, H. G. Cass, Thomas Evans and others have incorporated the Tennessee Mining Co. to develop iron mines near Chattanooga.

Chattanoooga—Candy Factory.—W. S. Nelson, of Cincinnati, Ohio, and J. N. Crow will, it is stated, establish a candy factory.

Chattanooga—Lumber Mill, etc.—The Bast Tennessee Lumber Co. has, it is stated, put new machinery in its lumber mill for the manufacture of hardwood finishings, bank railings desks, etc.

Cleveland—Pants Factory, etc.—The Cleveland Woolen Mills is reported as to commence the manufacture of jeans pants.

Davton-Flour Mill.-John Morgan, L. L. Donaldson, N. M. Keith and others have incorporated the Gem City Mill Co., and erected, it is stuted, a flour mill.

Erin-Stave Factory.-P. Hulse & Son have put in their saw mill machinery for manufacturing tight barrel staves.

Greeneville—Water Works.—The city proposes to put in a complete system of water works, and desires to correspond with contractors of same. All particulars and further information is furnished by H. B. Brown, secretary water works committee.

Greeneville-Flour Mill.-C. V. Glass is reported as having improved his flour mill.

Harriman-Lime Works.-Mr. Mann is reported as to erect another kiln at his lime works.

Harriman—Rolling Mill.—The Lookout Iron Co., previously reported as to remove its rolling mill from Chattanooga to Harriman, has completed same. The new plant consists of 20 single puddling furnaces and three trains rolls, and has a daily capacity of 80 tons of finished material.

Knoxville-Iron Furnace.-An iron furnace is reported as to be built.

Knoxville—Steam Laundry.—W. W. West, of Chattanooga, is reported as having purchased the Dayton steam laundry and as to remove same to Knoxville.

Memphis—Pump Factory, etc.—G. C. Power and E. P. Smith, Jr., of Minnesota; J. P. Prutzman and others have incorporated the Southern Pump & Lumber Co. to manufacture pumps and other wooden articles.

Memphis—Tin Mines, etc.—A. C. Tichener, R. F. Looney, J. H. T. Martin and others have incorporated the Tennessee Tin Mining Co. for the purpose of mining and dealing in mining lands, etc.

Memphis—Electric-power Plant.—The Raleigh Springs Railway Co. will erect an electric-power plant to operate its street railway.

Mission Ridge (P. O. Sherman Heights) - Water Works.—A stock company is reported as being organized for the purpose of constructing a system of water works at Mission Ridge.

Morristown-Land Improvement.-R. C. McCalla is endeavoring to organize the Baymont Springs & Improvement Co. for the purpose of purchasing and improving the Baymont Springs property.

#### TEXAS.

Beaumont—Basket Factory,—A Galveston party is corresponding relative to the establishment of a \$75,000 basket factory in Beaumont, W. A. Priddie can give information.

Brownwood—Gas Works.—The Continental Oil Co., of Denver, Col., previously reported as to sink oil wells at Brownwood, has also sunk gas wells and will, it is stated, apply for a franchise to light the city.

Centre Point-Cotton Mill.-It is stated that endeavors are being made for the erection of a cotton mill.

Dallas—Cotton Mill.—It is reported that parties have purchased the Boston Cotton Mill and organized to operate it a company with W. C. Howard as president; B. Blankenship, vicepresident, and A. F. Hardee, secretary, and issued \$100,000 of bonds; also that the company will increase the mill 25 per cent. in looms and spindles before January 1.

Dallas-Water Works.—The water works committee is asking for bids, to be received until October 19, for the construction of the new water works previously reported. It is proposed to expend at least \$500,000 for same.

Eagle Pass—Water Works.—The city will contract for the construction of a system of water works. C. R. Prouty, mayor, can be addressed.\*

Fort Worth—Carriage Factory.—Edgar Stark, of Clacinnati, Ohio; S. S. Perry and F. B Brady have incorporated the S. S. Perry Carriage Co. of Fort Worth with a capital stock of \$15 000.

Galveston—Basket, &c., Factory.—The Chattanooga Basket & Package Co., of Sherman Heights, Tenn., is investigating with a view of organising a stock company for the purpose of erecting in Galveston a factory for the manufacture of baskets, kegs, barrels, vases, butter dishes, etc.

Galveston—Bridge.—The commissioners' court has passed a resolution ordering the building of the wagon bridge across. Galveston bay recently metioned, provided no special tax levy be necessary.

Gause-Grist Mill and Gin.-A grist mill and cotton gin is reported as being erected.

Goldthwaite-Water Works,-The construction of a system of water works is proposed.

Goliad-Brick Works.-Rankin & Lewis will, it is reported, establish brick works.

Gonzales-Water Works.—The Gonzales Water Works Co. has, it is stated, sold their plant for \$20,000 to a new company, which will lay new mains, put in new machinery and increase the water supply.

Grant-Gold and Silver Mines.—It is stated that gold and silver mines will be developed at

Greenville—Flour Mill.—It is stated that the Alliance flouring mill has been leased by Henry Swift, who will organize a stock company to operate same.

Hillsboro-Artesian We'l,—The city has accepted a proposition of the McLeod Artesian Well Co., of Keokuk, Iowa, to sink an artesian well for water supply.

Memphis—Flour and Meal Mill—D. B. Powers is now building the flour mill recently mentioned. It will have a capacity of 125 barrels of flour and 50 barrels meal.

Mo tague—Coal Mines.—J. S. Gorman, of New York; Mrx Eiset, William Capps and others, of Fort Worth, have incorporated the Montague Coal Manufacturing Co. with a capital stock of \$500,000. The principal office is at Fort Worth.

Muenster-Cotton Gin.-Bier & Gilbert have erected a cotton gin, as recently reported.\*

Orange-Water Works.-The construction of a system of water works is contemplated.

Paris — Refrigerator-car Works, &c.— A. P. Park, W. H. Ragland and H. H. Kirkpatrick have incorporated the Southern Produce & Trading Co to construct, own and operate refrigerator and other railway cars, etc. The capital stock is \$25,000.

Richmond-Cotton Gin.-Bassett & Winste have, it is reported, erected a new cotton gin.

Rusk-Pipe Works.—As reported last week, pipe works will be erected by R. F. Carter. The plant will be operated by the State.

San Antonio-Street Paving.—The city council has decided to issue \$15,000 of bonds for street-paving purposes. The mayor can give particulars

Tyler-Plow Factory.-The Kelly Plow Factory, of Longview, is reported as to be removed to Tyler.

Velasco-Brick Works.—John Jobe, of Gonzales, has, it is reported, made arrangements for the establishment of brick works in Velasco.

Velasco—Steam Laundry.—A. Keys and A. Groce are reported as having established a steam laundry.

Velasco-Ice Factory,—It is reported that H. C. Mills, of McGregor, contemplates starting an ice factory in Velasco.

Velasco — Electric-light Plant. — An electriclight plant is reported as being put in the Hotel

Velasco.
Waco-Mattress Factory.—Edward Stephenson
has purchased from the Slayden-Kirksey Woolen
Mill the mattress factory mentioned recently;
will doubtless operate it.

Wichita Falls—Foundry and Machine Shop.— The Wichita Falls Iron Works, reported last week as incorporated, will operate general repair and construction shops J. G. James is president; J. A. Kemp, vice-president, and L. B. Morrison, secretary. A foundry is to be added.

Woodville—Canning and Soap Factory.—H. T. Hodges intends to start a canning and soap

#### VIRGINIA.

Bessemer-Saw and Planing Mill-Kiser & Reines are reported as erecting a saw and planing mill.

Buena Vista—Machine Works.—The A. K. Rarig Co., mentioned last week, may put in new machinery later on.

Buena Vista—Publishing.—J. O. Shepherd is president; J. W. Talley, vice-president, and J. W. Hughes, secretary, of the Buena Vista Publishing Co., previously reported as incorporated to continue the publication of the Buena Vista Advocate. The capital stock is \$25,000.

Charlottesville — Barrel Factory, &c. — The Charlottesville Cooperage Co. is operating a barrel factory, etc.

Charlottesville-Steam Laundry,-E. Eline has established the steam laundry munificned last week.

Chesterfield County—Coal Mines.—W. B. Gay and others, of Richmond, have purchased and commenc d to develop the Midlothian coal mines in Chesterfield county.

Claremont-Land.—The Claremont Land Association will be chartered, it is stated, by New Jersey capitalists.

Clifton Forge-Cigar Factory.-W. O. Pettecrew is reported as having established a cigar factory.

Cripple Creek—Limestone Quarries.—The Max Meadows Iron Co. is reported as having leased land at Cripple Creek from L. S. Calfee, and as to develop limestone on same.

Lexington-Water Works.—The city has purchased the Estsminger farm and springs near Lexington, thus increasing its supply of water 300,000 gallons per day.

Lynchburg—Wire Factory,—E. H. Murrell proposes to organize a stock company to establish a wire factory.<sup>6</sup>

Newport News-Manufactories - Two manuacturing concerns are now treating with the Board of Trade relative to establishing plants in Newport News.

Norfolk—Cotton Compresses, Docks, Wharves, &c.—The Norfolk & Portsmouth Cotton Terminal Co. has been incorporated with C. G. Elliott as president, and L. R. Watts, of Portsmouth, vice-president. It is authorized to conduct a warehouse, storage, cotton-yard, cotton pressing, dock and wharf business, etc. The capital stock is to be not less than \$50,000 nor more than \$50,000.

North Danville-Tobacco Factories. - Several tobacco factories are reported as to be erected.

Norton-Coal Lands,—J. C. Haskell, of Bristol, Tenn., has purchased 2,000 acres of coal land near Norton, and will with others probably develop same.

Piagah - Creamery. - The Clinch Valley Butter & Cheese Manufactory has been organized with S. Graybesi, president, and S. S. Witten, secretary, for the purpose of erecting and operating a creamery. The capital stock is \$5,000.

Portsmouth — Sewerage System.—The Portsmouth Sewerage Co. has been organized with P. C. Marshall, president, and R. L. Herbert, secretary, to construct a sewerage system.

Radford-Glass Works.-W. O. Crawford, of Salem, representing a Western syndicate, is negotiating for the erection of glass works in Radford.

Richlands-Creamery.-The establishment of a creamery is talked of.

Richmond—Brick Works.—The Gay & Lorraine Co. has recently purchased the brick works of J. P. Scott, near Richmond, as reported last week, and is now operating same.

Richmond—Coffee, Grist and Hominy Mill— The Southern Manufacturing Co., recently reported as erecting grist and hominy mill, etc., is also putting in coffee roasters of 150 bags per day capacity.

Richmond-Crematory,—A site has been selected for the city's crematory, and work on the furnace foundation will be commenced at once.

Roanoke-Printing Works—The Bell Printing & Manufacturing Co, previously reported as erecting a new building for its printing works, has been reorganized with E. L. Stone as president; J. B. Plashurne, vice-president, and A. A. Stone accustant.

Roanoke—Sewer Construction.—G. L. Bennett, city clerk, will receive sealed bids until October so for constructing the first section of the combined steam, water and sewer interceptor, to be built of brick, from Price to Mountain street, about 2,000 feet. Certified check for \$500 must accompany each bid.

Shendun—Egg-crate Factory.—A factory has, it is stated, been established for the manufacture of egg crates.

Strasburg-Lime Works.-E. F. Mitchell, of Water Lick; C. M. Borum, Edward Zea and others are reported as to erect lime works at Strasburg.

Suffolk—Knitting Mill.—The Mesers. Cobb will, it is stated, put new machinery in and double the capacity of their knitting mill.

Wytheville—Agricultural-implement Factory, &c.—R. A. Moore & Co. will erect, as reported in our last issue, an agricultural-implement factory, also iron foundry and machine shop.\*

#### WEST VIRGINIA.

Buckhannon — Furniture Factories, &c.— The Buckhannon Land Trust Association is treating with two furniture factories and two other manufactories desirous of locating in Buckhannon.

Buckhannon—Sash, Door and Blind Factory.— A Detroit (Mich.) company has made a proposition to erect a sash, door and blind factory in Buckhannon. The Buckhannon Land Trus Association can give information.

Buckbannon-Chair Factory.-The Buckbannon Land Trust Association has received a proposi tion from an Ironton, Ohio, party for the erection of a chair factory in Buckh

Centralia, Braxton county (no postoffice) - Saw and Pulp Mill .- The Porter Lumber Co., of Penn sylvania, is reported as to erect a saw and pulp w town of Centralia

Centralia, Braxton county (no postoffice) Industries, &c. - The Centralia Improvement Co Industries, &c. — The Centralia improvement Co.
Intely reported as incorporated, will, it is stated,
expend \$40 cco in the improvement of its property, and is negotiating for the establishment in
the new town of Centralia of a tannery, chair
factory and flour mill.

Charleston - Boiler Works. - An additional building is reported as to be erected to the Char leston Boiler Works.

Charleston-Lumber Mill.-W. T. Crawford, of Huntington; G. O. Blubaugh, W. S. Lewis and others have incorporated the South Side Lumber Co. with a capital stock of \$8,000; privilege of increasing to \$100,000 The company is authorized to operate saw, planing, lath and shingle mills, etc.

Clarksburg—Coal Mines.—Ira Post and M. L. Hutchinson are reported as having purchased the coal mines of the Columbia Coal & Coke Co. at Clarksburg for \$23,035; will doubtless develop

Glendale-Coal Mines.- The Glendale Coal Co., recently mentioned, has organized with B B McMechin as president, and F. H. Blake, sec retary.

-Stone Quarry .- The West Virgin Harris Central & Pittsburg Railroad Co. (office, Cumber land, Md.) is reported as developing stone quarries near Harrison

Huntington - Excelsion, Mattress, &c , Factory, The Huntington Excelsion & Mattress Co., pre-viously reported as organized to manufacture excelsior and mattresses, has been incorporated with an authorized capital stock of \$50,000

Kenova-Stramboat Line.-J. H. Dingee of Philadelphia, Pa, and others have inco-porated the Kenova Transportation Co. with a capital stock of \$30,000 to operate a steamboat line.

Logan County—Manufacturing and New Town The Naugatuck Land Co. has recently beer chartered to build a commercial and manufactur-ing city at Naugatuck, in Logan county. The capital steek is fine as capital stock is \$100,0

Mannington-Brick Works and Tannery.-F. Burt and others have incorporated the Burt Manufacturing Co. to operate a tannery and brick works. The authorized capital stock is

Moundsville -Tool Werks .- Tool works are reported as to be established. The Moundsville Mining & Manufacturing Co, can give inform

undsville-Stove Works .- The M undsville Mining & Marufacturing Co. has closed contract with the Joseph Bell Stove Co. for the removal of its entire stove works to Moundsville. Buildings for the plant will be erected at once

Parkersburg-Oil Refineries.-It is stated that seve al inde, endent oil refineries will be put in

Parkersburg-Lumber Mill.-The West Virginia & Pittsburg Boom & Lumber Co., recently reported as incorporated, etc., is erecting on the Gauley river a lumber plant to have capacity of 50,000,000 feet per annum. Machinery has been ordered from the Stearns Manufacturing Co., of Machinery has been E ie Pa

Springfield-Coal and Iron Mines, &c .- I. W Ferguson and others, of Topeka, Kans, and A. P. Farl-y and John Beckley, of Raleigh county have incorporated the Springfield & New River
Development Co to develop cost and iron mines,
manufacture lumber and lay off a new town.
The paid-up capital is \$250,000, with privilege of increasing to \$250,00

Shepherdstown-Mill - Legge & Reynolds are reported as to erect a new mill

Terra Alta-Mining and Manufacturing. -Mountain State Manufacturing & Mining Co recently reported as incorporated, has organized with J. S. Lakin as president; J. R Trotter, secretary, and H. W. Clements, of New York city, general manager.

Vadis-Oil Wells.-It is reported that oil wells

Wheeling-Generator Factory.-J. D. Cameron proposes to organize a stock company to manufacture the oil gas fuel generator recently patented by G. R. Seymour.

#### BURNED.

Alexandria, Va.—The Alexandria Wire Pillow fanufactory damaged by fire.

Belair, Md.-The carriage factory of the Bulett

Birmingham, Ala.—The mill of the Derby Ruber Co.; loss \$50,000.

Centreville, Ala.-The cotton gin of N. Fuller

Covington, Ky .- The hosiery mill of William Klein & Sons: loss about \$40.0

Eagle Lake, Texas.-The cotton gin of William vant damaged by fire.

Fort Worth, Texas,-The Eilis Hotel.

Garrison, Texas.—The saw mill of A J. Simpon at Layac creek; loss \$50,000.

Goliad, Texas.-The grist mill and cotton gin Redding & Stormfeltz.

Marion, Ala.-The cotton gin of I. A. Nichols ar Mario

McGregor, Texas .- The cotton gin of the Philps Gin Co.: loss 18,000

Memphis, Tenn -The Memphis Theatre.

Montgomery, Ala.—The cotton gin of W. D. Hall, near Montgomery. Shenandoah, Va - The iron foundry and

hine shops of the Norfolk & Western Railre Co. (office, Roanoke); estimated loss \$20,0

Shreveport, La.—The cotton gin of Charles chuler, near Keachi.

Spring Hill, Ala -The cetton gin of F. L.

Van Alstyne, Texas.-The cotton gin of Mat Baker; loss \$5 500. Washington County, Ky.—The distillery of B. F Colgan; 1 ss \$9,000

# Building Notes.

Apalachicola, Fla.—Courthouse.—Franklin county will probably build a courthouse in Apa-lachicola. The county clerk can give informa-

Attalla, Ala.- J. R. Hughes, P. L. Walker, W. T. Brown, M. L. Buckley and L. B. Whatly will each erect a brick building.

Attalla, Ala.- Opera-house.- Stewart & Dillard will probably erect a three story opera-house

Augusta, Ga.—It is stated that a business house ill be erected on the corner of Marburg and Broad streets.

Baltimore, Md.—Warehouses, etc.- Building permits have been granted to H. M. Reinhart to ere t 21 three story buildings and two two story ouildings : I.W. Sindall, three three-story houses John J. Thompson, two six story warehouses; John J. Thompson, two six story warehouses; S ott, Payne & Bres, two four-story warehouses; J. W. Hoffocker, 21 two story buildings, and A. L. Gorter, four two-story buildings.

Bastrop, Texas—School Bui'ding.—The erection of a bri k school building is contemplated by the Germans.

Beaumont, Texas-Courthouse—Contract will be awarded about October 25 for building the courthouse lately mentioned. Eugene T. Heiner, of Houston, is preparing the plans, and the estimated cost is from \$35 000 to \$40,00

Big Stone Gap, Va .- L. R. Perry, of Snowflake, has, it is stated, contract for erecting a \$25,000 residence in Big Stone Gapfor R. A. Ayers.

Birmingham, Ala, -Office Building, -I. L. Chilifoux & Co., lately mentioned, will erect a five story brick office and store building to have elec-tric elevator, speaking tubes and all modern conveniences. The estimated cost is \$100,000.

Bristol, Tenn. - Institute.-McDaniel & St. of Chattanooga, have secured centract for the erection of the building for the Southwest Virginia Institute, lately reported. It is to cost about \$75,000. W. P. Tinsley, of Lynchburg, Va., pre red the plans.

Buena Vista, Va. - The Buena Vista Publishing contemplates the erection of a three-story brick building.

Chattanooga, Tenn.-The American Mutual Building & Savings Association has been char-tered by B. C. Blachley, W. R. Stivers, A. L. Ross nd others

Chattanooga, Tenn - Depot.-The Nashville, Chattanooga & St. Louis Railroad Co (office, Nashville) is reported as to build a freight dep in Chattanooga.

Chattanooga, Tenn.—Hunt & Lamm will, it is stated, prepare plans for remodeling the Crow House for the Citizens' Bank Block Co.

Chesterfield, S. C .- Jail .- Chesterfield county contemplates erecting a jail bui ding in Chester field. The county clerk can give information.

Clifton Forge, Va.-Depot.-W. A. Chesterm of Glasgow, has secured contract for the erection of the passenger depot previously reported for the Chesapeake & Ohio Railroad Co. (office, Richmond

Conway, Ark .- Hall .- The Knights of Pythias contemplate erecting a two-story brick hall h

Corpus Christi, Texas—Jail.—Reid & Suther-and have contract for the jail building recently eported for Nueces county.

Corpus Christi, Texas-Hotel.-It is stated that the Miramar Hotel, lately burned, will be rebu

Dalton, Ga .- Depot -The Western & Atlantic Railroad Co. (office Atlanta) will build the depot mentioned in last issue within the next three

Harrold, Texas-Hotel .- J. T. Pearson is

Hollins, Ala .-- Hotel and Hospital .-- The Dunlop Medicine Co., lately referred to, has a hotel and

ospital at Warren Springs nearing completion at a cost of \$7.0

Goldsboro, N. C.—Orphanage.—W. T. Dortch will receive proposals until October 6 for the erection of the buildings for the orphanage of the Independent Order of Odd Fellows, recently entioned.

Grady, Ga .- D. M. Burkett and J. P. Brient are reported as erecting a brick block.

Greeneville, Tenn.—Work has been commenced n the erection of a brick block for Maloney & Kidwell.

Hague, Va.-Hotel.-The erection of a hotel is

Hampden, Md.—Philip Walsh & Son, of Balti-ore, have been awarded contract for the erecion of a rectory to cost \$5,000 for the St. Mary's Protestant Episcopal Church

Harriman, Tenn.-W. H. Edwards has preared plans for the erection of a three story ailding for the Fales Building Co.

Houston, Texas.- G. W. Kidd will receive proosals until October I for the erection of a bu

Jacksonville, Fla.-Hotel.-P. Tischler, lately referred to, will erect a three-story brick hotel and store building.

Jacksonville, Fla.-Hotel.-T. Tugby, owner of the Tremont Hotel, lately burned, in reply to a query as to whether he would rebuild his hotel, stated that he had concluded not to build in

Jasper, Fia —Courthouse.—J. W. Bynum ive Oik, has secured contract at \$15,000 for ourthouse previously reported for Hami Live Oak, has se ounty.

Kerrville, Texas-Church.-It is stated that contract has been awarded for the erection of church for the Methodists.

Knoxville, Tenn.-Warehouse -The French Broad River Transportation building a warehouse, 60x100 feet. Co. prop

Knoxville, Tenn.-Depot.-It is stated that th East Tennessee, Virginia & Georgia Railroad Co, Knoxville, Cumberland Gap & Louisville Railroad Co. and the Knoxville & Augusta Rail-road Co. contemplate building a union depot in

Lonacoving, Md.-A branch of the Baltimore Building & Loan Association of Baltimore has been organized with M. G Porter, president, and R. M Boyd, treasurer.

Meridian, Miss.—Hotel.—The Southern Hotel, recently burned, will probably be rebuilt.

Natchez, Miss.-Armory -B. B. Davis has prepared plans for the erection of a two-story arm ouilding for the Natchez Rifles.

Newport, Ky.-The Home Loan & Building ntioned in last issue, has been or nized by G. Korn, J. Creutz, G. Kauf Norfolk, Va.-A branch of the Middle States

Loan, Bulleing & Construction Co. of Hagers-town, Md., has been organized with S. L. Foster, president; G. W. Wilson, secretary, and E. M. Henry, treasurer. Norfolk, Va.-Warehouses -J. H. Calro

contract for rebuilding a warehouse for L. Roper, and H. W. Williams has contract for building a ive-story warehouse for Baylor & Taylor, to eplace one recently burned.

Norfolk, Va.-Warehouses -The Norfolk & Portsmouth Cotton Terminal Co. has been organized with C. G. Elliott, president, to build ware-The authorized capital stock is ouses, etc.

Oakland, Fia .- Vinion & Copner are reported to build a warehouse.

Ocals, Fla.-Depots.-Joseph Marzyck has, it is stated, been awarded contract for the erecti of a passenger depot 30x60 feet and the freight depot 50x65 feet previously mentioned for the Florida Central & Peninsular Railroad Co. (office, Jacksonville).

Orlando, Fla.—Warehouse.—O. F. Winkleman & Co. contemplate building a corrugated iron warehouse 25x100 feet.

Owensboro, Ky.-Depot.-Plans have been prepared for the erection of the depot previously re-ported for the Owensboro & Nashville Railroad It is to be a brick and stone structure 66x32 feet.

Port Tampa, Fla.-Church.-Architect Ray has prepared plans for the erection of an edifice a feet for the Methodists.

Quintana, Texas—Hotel.—A stock covill probably be formed to build a hotel.

Quintana, Texas.-A. Follett will erect a twostory brick business house.

Richmond, Ky .- J. & J. S. Collins are reported as to erect a store building.

Russellville, Ala.—Courthouse, etc.—The plans of W. S. Hull, of Sheffield, have, it is stated, n adopted for the erection of the courthouse and jail recently reported for Franklin county.

Saint Marks, Fla .- Hotel .- It is stated that the

Shelby, N. C.-Church.-The Catholics of

Shelby, N. C.-Hotel.-Efforts are being made to organize a company to build a hotel. J. T. Gardner, mayor, can give particulars.

Snickersville, Va.—Hotel.—B. T. Noland has secured contract, it is stated, at \$5,500 for the erection of the hotel previously reported.

Tallapoosa, Ga.-S. D. Bushel, of Attleboto Mass., is reported as to build several ho

Tchula, Miss.—Church.—The Eoise intend building a church. Rev. Dr. I can give particulars.

Vicksburg, Miss.-Architect Stanton is preparing plans for the erection of a three-story brick building for the B. B. Literary Association.

Washington, D. C -Capitol - Edward Clark architect United States Capitol, writes that plans have been made for the extension of the west front of the Capitol at an estimated cost of \$2,300, oo, but Congress has not authorized the improve nent as y t.

Baptists contemplate building an edifice.

Winston, N. C -Courthouse, -Forsyth county contemplates building a courthouse in The county clerk can give information.

#### Plans to Develop a Great Water-Power.

An enterprise has been projected that will be, if carried into full effect, of inestimable importance to Savannah, Ga.

Twenty-five miles from that city are the falls of the Canoochee river. A syndicate has purchased 2,000 acres of land on the river, and has thus acquired the ownership of these rapids, from which it is expected to obtain from 25,000 to 50,000 horsepower. This will be converted into electricity and transferred by wire to the city, where the average cost of horse-power per year of working hours is \$50, while at the city water works, which are kept in unin-terrupted action from year to year, the cost is \$100 per horse-power. The Savannah News says :

"As to the financial prospect of the plan, the cost of a horse-power averages in Savannah \$50 a year. In the water works it costs the city, with wood as fuel at \$2.85 per cord, \$100 per horse-power per year for 24 hours' work.

"The company counts on obtaining for power just half of this average, or \$25 per horse-power, which would give a gross income of \$250,000 on 10,000 horse-power, or \$500,000 on 20,000 horse-power. income would represent 20 per cent. gross, or \$1,250,000 and \$2,500,000, respectively. of capital to be employed.

"This calculation is of course entirely problematic, as the cost of the plant, the expenses of running and maintaining the same, the loss of power by transmission and the capital employed will be the factors which will decide the cost of the power here. It is believed that \$25 per horse-power for actual power used will be remunerative to the enterprise, and will give Savannah what it needs to become a first-class manufacturing town, namely, a cheap and abundant power, which can be obtained with comparatively little outlay and in a short time, what other inland manufacturing towns like Augusta have obtained after years of hard toil and the spending of immense sums of money. They had to wait for years on the result. which will be felt here at once. As for instance, the saving of \$4,000 per year in the cost of power to the Savannah cotton mills will at once make its stock pay a dividend of 10 per cent. instead of 6 per cent.; the value of the stock will quickly reach \$150 and over. The same will be the case with many other enterprises already established. Cheap power means assured success to them.

"The promoters of this enterprise are fully confident that it will be a great thing for Savannah. The moving spirits are C. B. Warrand and William Falconer, backed by a well-known electric-plant company of Philadelphia "

The Effect of Pauper Immigration.

The people of Great Britain are beginning to realize something of the evils accruing from unrestricted emigration. That country, like the United States, has always kept her ports open to all comers. Formerly, there as well as here, that policy was advantageous to the nation, for emigrants were, as a rule, people with means enough to take care of themselves until they had established themselves in gainful occupations, or else they were assured of work and wages before they left their homes. Paupers and helpless people were but a fraction of the great body of foreigners who settled in either country. Of late years there has been a decided change for the worse in the characters and conditions of the foreigners coming to the United States. While many emigrants have been welcome additions to our population, many others have been of a class whose departure was a blessing to the land of their birth, and for whom this country had no use. So great has been the influx of this class that Congress has been compelled to pass restrictive laws, mild indeed as compared with the evils they were designed to obviate, but still effective enough to act as a warning to European nations that they would not be permitted to make the United States their lazaretto. The enforcement of these laws has had the unexpected effect of diverting much undesirable emigration from this country to England, and that has aroused our cousins across the ocean to a sense of the danger to themselves that will result from it.

The Liverpool Weekly News of recent date has an editorial on this subject in which is asked this pertinent question: "Why should other countries receive them, when their advent can only swell the great army of chronic poverty, misery and crime?"

"No civilized country," the News says, "will now allow itself to be made the dumping-ground of the criminal classes of any other land. Pauper immigrants who either cannot or will not work even for a bare subsistence in a strange yet hospitable land can never make desirable citizens, and are little more worthy of consideration than ex convicts. The continued immigration of tens of thousands of such exiles into this country, if it goes on unchecked, cannot fail, perhaps sooner than is expected, to prove the last straw in weighing down a social and industrial system which in the East end of London is already strained to the utmost limit compatible with peace and order and safety of life and property. Meantime the determination of the United States authorities to decline to allow their country to become the dumping-ground of European pauperdom continues to be vigorously acted

That typical American, Dr. Chauncey M. Depew, on his return from his annual summer outing in Europe last week, corroborated the foregoing statement in his usual desultory greeting talk to his fellow officials of

the New York Central Railroad in the following paragraphs:

Having viewed so often the brilliant side of London's social life, it occurred to me that I would take a view of its dark side. One Sunday morning, in a garb which was t cross between that of a costermor ger and a pickpocket, I traversed the Whitechapel district. It was a sight impossible to see anywhere else in the world. The streets were so crowded that it was almost impossible to wedge your way through. Every few feet was some merchant, male or female, selling the cast-off clothes or household furniture which came to them after having been worn or used through a dozen different grades before it reached Whitechapel. I saw rags held up there for sale that nowhere in America would find any place except in the ash-barrel, and the ashman in picking it over would refuse to carry it home. Such poverty, such misery, such wretchedness, such a seething furnace of ignorance and all the attendants upon hopelessness, I never saw before and never expect to see again. I felt that this great city, with its magnificent palaces, with every evidence in part of it of the largest wealth, the greatest luxury, the most liberal expenditure, rested upon a volcano which only needed the force of civilization to bring upon it a catastrophe which would shock the world.

Within twenty minutes from that place you come to the annual parade in Hyde Park of all that is most splendid in rank, wealth, beauty and dress in the British Empire. Miserable as these people have been always, their misery is a thousandfold more intensified by pauper immigration. Great Britain has established no barrier, as we have, and imposed no rules whatever. It is the dumping-ground for all Europe for misery which must starve or go somewhere. It goes to London and competes there with a condition so much better than its own that in the wages it accepts, in the work it does, it is reducing the British workingmen and workingwomen of the great cities to a dangerous point for British peace and prosperity. . It is a lesson for us to take to ourselves, whether the barriers which we have already should not be increased, and whether notices should not be sent all over the world that "we have sympathy, we have humanity, but keep your paupers at home."

The Mafia outbreak at New Orleans, the Socialist disturbances that have occurred in some Northern and Western cities, are all so many warnings against unrestricted emigration, and furnish urgent arguments for the enactment of more stringent laws than those now in force.

The South has a population more thoroughly American than any other section of the United States All its States desire to receive immigrants that will become useful and lawabiding citizens, whatever may have been their birthplace. But in none of them is there room for European paupers or criminals, and their representatives in Congress can be relied upon to vote for any wise laws that will make the landing in this country of such emigrants an impossibility.

THE decline in the price of Florida hard phosphate rock, due in part to the great increase in ocean freight rates, and in part to the troubles that are nearly always felt during the early stages of development in any new industry, has brought out a call for a general meeting at Ocala on October to always find regular cargoes. Steamers of the Johnston Line have for a long time stopped at Boston, and some of the Atlantic Transport Line at Philadelphia, to discharge inward cargoes, because the imports at Baltimore are not large enough for them to always find regular cargoes at

ist of all phosphate-mining companies. It is proposed to form a combination to regulate the output and to take steps to put the business on a sound basis of development. So many companies have been organized, some without adequate capital and some without the skilled management needed, that the business has temporarily been injured, but these troubles will all be overcome in time. It is claimed that the pebble or river mining interests have not been affected.

A DISPATCH from New York to the Baltimore Sun says:

The sale of Mr. C. P. Huntington's interest in the Cherapeake & Ohio to an English syndicate is taken in some quarters as foreshadowing the establishment of a direct line of steamers from Newport News to Liverpool. Mr. Huntington has always believed and still believes that Newport News will one day be the greatest port on the Southern Atlantic coast. In conversation with the Sun correspondent on this subject the practical engineer and railroad man who originated the terminal scheme there for Mr. Huntington says that there is one insuperable objection, for the present at least. It is impossible to get vessels to go direct to Newport News with cargoes. They have to go to Baltimore or New York, discharge there, and then go to Newport News for return cargo. This he found-and he had investigated the whole matter thoroughly with Baltimore and New York shippers in the hope of interesting them-was a fatal bar to the terminal scheme. The day may come when the South will draw imports enough to justify vessels landing there, but at present it is not so. With Mr. Huntington he still retained the highest regard for the natural facilities of the harbor, but the commercial difficulties in the way of their use were as yet too strong. It was a matter of demand and supply which the future would correct. He was sure, however, that in the distribution of the enornous exports of grain this year Newport News would get a fair share.

It is hard to see how more ridiculous mistakes than are contained in the above dispatch could be published by any paper that pretends to be at all reliable. Regardless of what the sale of Mr. Huntington's stock may foreshadow, contracts were made in May for three regular steamship lines from Newports News to Europe, and several steamers loaded with miscellaneous cargoes of grain, flour, provisions, tobacco, cattle, lumber, etc., sail from that port every week. So far as relates to the lack of imports, it should be remembered by the Sun that for years the regular line steamers of Baltimore brought but little inward cargo, and even to-day the import trade of Baltimore is so small compared with its export business that many of the best boats of our regular lines bring import cargoes to other ports and then come here to load outward cargoes. Steamers of the Johnston Line have for a long time stopped at Boston, and some of the Atlantic Transport Line at Philadelphia, to discharge inward cargoes, because the imports at Baltimore are not large enough for them

London or Liverpool for this port. The development of the import business is of very slow growth, but the lack of it will not prevent the running of regular lines, either from Baltimore or from Newport News, so long as there is an abundance of general outward cargo business.

#### Demand for Dwelling-Houses.

The greatest present need of many of the flourishing towns of the South is more dwellings for rental. There are few if any growing Southern towns or cities in which the supply of this class of buildings approximate the demand for them. The Staunton (Va.) Vindicator calls attention to this need in that city, and what it says will apply with even more force to many other localities. The Vindicator says:

The building of residences, whether regarded as meeting a pressing necessity now confronting the progress of our city or as a matter of financial profit, cannot be too frequently brought to the notice of our people. Residences, especially those of a moderate size, are not only wanted here, but badly needed. A gentleman who is just completing 5 six room dwellings alre-dy has 38 applications from renters. This shows how badly they are needed. The fact that the rent offered is largely over 10 per cent, on the investment shows how profitable the building of dwellings is.

From many other places the same report comes. It is said that 500 dwellings could be rented in Norfolk, so great is the demand, and Newport News reports an even greater enquiry for dwellings. The immense ship yard at the latter place, now employing nearly 2,000 men and stead-ly increasing its force, and the other industries there, are creating a demand for houses far in excess of the supply.

THE Pan-American Transportation Co., which organized a few months ago with such a great flourish of trumpets, with a capital reported at anywhere from \$1,000,000 to \$100,000,000, has been endeavoring to secure subscriptions to its stock in Galveston and New Orleans on the promise to start steamship lines from those ports to South America. The MANUFACTURERS' RECORD knows nothing about the company, and it would be delighted to see South American steamship lines from Galveston and New Orleans, but there are several statements in the New papers that are incorrect. One of these is that-

Mr. Clark is associated with the Illinois Central Railroad, and the fact that that great corporation is actively interested in the movement leaves no doubt of the thorough reliability of the persons at the Chicago end of the line.

As the following telegram from the president of the Illinois Central Railroad will show, this is not correct:

CHICAGO, ILL., Sept. 23, 1891. Editor Manufacturers' Record:

This company has no knowledge either of J. B Clarke or the Pan-American Transportation Co., and is in no way interested in their projects. STUYVESANT FISH.

Mr. C. P. HUNTINGTON is said to positively deny the report that he has just sold 25,000 shares of the Chesapeake & Ohio stock.

#### A Big Lumber Combination.

A large meeting of dealers in dressed lumber from New York, Pennsylvania, Maryland and North and South Carolina was held in Norfolk last Tuesday, resulting in the decision to apply for a charter for a stock company to be known as "The North Carolina Dressed Lumber Co.," bracing representative lumber concerns in the States named. The minimum capital is to be \$200,000 and the maximum \$2,-The following officers were elected: President, John L. Roper, of Norfolk; vice-president, H Clay Tunis, of Baltimore: secretary, John Harker, of Norfolk: treasurer, T. W. Smith, of Washington, D. C. Directors: W. A. Wimsatt, Washington, D. C.; T. B. Hyman, Goldsboro, N. C.; W. L. Parsley, Wilmington, N. C.; D. W. Alderman, Alcola, S. C.; J. Stewart Knight, Edenton, N. C.; H. Corwin, Jr., Elizabeth City, N. C.; D. J. Aaran, Mount Olive, N. C.; James Mc-Guire, Suffolk, Va.; H. Clay Tunis, Henry P. Duker, E. E. Dale, George F. Sloan and John Horstmeier, of Baltimore; Wm. P. Thompson and S. C. Hamilton, Jr., New Berne, N. C. The members of this combination are interested in North Carolina pine lumber, and they have united to control the business in order to secure better prices.

The purposes of the company are, the secretary states, to get a fair price for lumber, and to take care of any lumber that may be thrown on the market.

THE industrial issue of the Rocky Mount (N. C) Argonaut is a splendid edition. Its 16 pages teem with information about the resources, development and general interests of Eastern North Carolina. manufacturing industries, the natural re-sources and the climate of this section are forward in an interesting story, into which is woven sketches of an industrious and prosperous people. In its summary of the tobacco-growing in erests the Argonaut presents figures which show that the tobacco planter in Eastern North Carolina realizes from \$100 to \$500 per acre, while the Western farmer is toiling to make his land pay from \$10 to \$15.

THE MANUFACTURERS' RECORD is all that it claims to be-a weekly Southern industrial, railroad and financial newspaper-and is one of the ablest and most reliable journals of its class published. Each number is replete with highly valuable information concerning the natural resources of the South, and the progress that is being made in the development of same. The MANUFACTURERS' RECORD is doing a great service in advancing Southern interests, and its work should be appreciated.- The Herald, Aransas Harbor,

THAT Greenwood, Miss., is a live, progressive town is shown by the support its business men gave to the special edition of the Greenwood Enterprise, published September 10. It is a 16-page paper con taining a review of the mercantile, manufacturing and agricultural interests Greenwood and the surrounding country. Greenwood is called the queen city of the rich delta country, and the Enterprise is an able and active advocate of its interests.

ACCORDING to reports from what ought to be reliable sources, the financial troubles of the Kensington Land Co, of Kensington, Ga., are about to be overcome, and w rk is to be resumed on the industrial enterprises started there before the panic.

DESKS are wanted for school building at Shelby, N. C. Address J. F. Tiddy, chairman school commission.

MAHONEY & BORDIN, of Fernandina, Fla, want to purchase wheelbarrows, shovels and oyster tongs.

#### MACHINERY WANTED.

If you desire to purchase machines of any kind consult our advertising columns, and if you cannot find just what you wish, send us particulars as to the kind of machinery needed. We will make your wants known free of post, and in this way secure the attention of machinery manufacturers throughout the country. You will thus get all information desired as to prices, etc.

Artesian-well Drill.-J. N. Booker, Rodgers, achinery for drilling

Baling Press.—The Elkin Manufacturing Co., Elkin, N. C., wants prices on a baling press, either power or hand.

Band Saw .- W. F. Rice & Bro., Woodleaf, N.

Boiler.-John Chipman, Ocala, Fla., may want

Boiler.-The Elkin Manufacturing Co., Elkin, N. C., wants net cash prices on a 10 horse-power stationary tubular boiler, with half front and fix tures complete.

Boiler.-The Piedmont Guano Co . Charleston

Boilers.—The Bartow Steam Wood Yard, Bar-ow, Fla., wants bids on boilers.

Boiler and Blower .- Mahoney & Bordin, Ferandina, Fla., want to purchase a 60, 70 or 80 orse power boiler; also a blower to carry off

Boiler and Engine -C. D. Clough, Box Lakeland, Fla., wants prices on boiler and engine, about 10 horse-por

Boiler and Engine .- J. H. Hatch, Buford, Ga. ants to purchase a second-hand engine and boiler from 18 to 30 horse power.

Boiler and Engine .- O. L. Williams, Farming ton, N. C., will want boiler and engine

Boilers, Engines, Heaters, Pumps, &c - Eugene T. Lynch, Ir., Memphis, Tenn., is in the market for boilers, engines, heaters, pumps, etc , for two electric-power plants.

Box Machinery.-The Forest City Manufacturing Co., Savannah, Ga., will want box and bucket making machinery

Bucket and Tub Machinery .- I. H. David & Bro., Dillon, S. C., want address of manufacturers of bucket and tub-making machinery.

Cars.--John Chipman, Ocala, Fls., will probably

Cars.-Eugene T. Lynch, Jr., Memphis, Ter is in the market for cars for two electrical rail-

Cars .- J. D. Kase, Greensboro, N. C., can be addressed relative to the purchase of an open and a closed car, standard gauge, for street railway Corn Mill.-J. E. Gassaway, Gates, S. C., may

want a corn crusher or corn m Cotton Gins .- Fowler, Son & Co., Gainesville,

Texas, will purchase cotton gins Cotton Mill .- J. M. McAfee, Canton, Ga., wants to purchase a small outfit of machinery to manu-

facture cotton yarn. Cotton Mill, &c -Fowler, Son & Co , Gainesville, Texas, will purchase cotton-milling and spinning machinery.

Cotton-mill Machinery .- The Elkin Manufac turing Co, Elkin, N. C., wants prices on two Whitin-Arlington cards, with quick strippers lickerins; also wants prices on a batting card

a batting card Door and Sash Machinery .- W. F. Rice & Bro. Woodleaf, N. C., may want sash and do

Dryer.-John Chipman, Ocala, Fla., may want ate rock dryer.

Dryer.-The Paradise Fertilizer Co, G. H. intherland, manager, wants a dryer to dry soft

Dummy Engine.—Eugene T. Lynch, Jr., Mem-his, Tenn., is in the market for second-hand dummy engine.

Dummy Engine -J. D. Kase, Greensboro, N. C., can be addressed relative to the purchase of smokeless and noiseless dummy engine of th

latest type.

Electrical Railroad.—The Rock Hill Land & Town Site Co, Rock Hill, S. C., wants estimates on equipping 3 miles of railway with electric-Two cars carrying one 15 horse power otor each will be required.

Electrical Railroads. - Esgene T. Lvnch, Jr., Memphis, Tenn., is in the market for rails, iron bridge, ties, timber of all kinds, frogs and switches, copper and iron wire, wood and iron poles, iron roofing trusses, etc., for electrical railroads.

Electric power Plants.-Eugene T. Lynch, Jr., Tenn., is in the market for two co plete electric-power plants.

Elevator.-O. L. Williams, Farmington, N. C., will want elevator for tobacco factory.

Elevators.—The Piedmont Guano Co., Charleson, S. C., will want elevators.

Engine.-John Chipman, Ocala, Fla., will prob want a 35 horse-power er

Engine .- S. R. Rentz. New River, Fla., wants to purchase an engine

Engine.-The Bluff Springs Planing Mill Co. Bluff Springs, Fla, is in want of a 40 horse-power

Engine.-The Piedmont Guano Co., Charleston, S. C., will want an engine.

Engines.-The Bartow Steam Wood Yard, Bar-

ow, Fla., wants bids on engines Foundry.—R. A. Moore & Co., Wytheville, Va., will need machinery for foundry.

Furniture Machinery.—The Forest City Manu-facturing Co., Savannah, Ga., will want ma-chinery for the manufacture of furniture

Gas and Steam Engine, &c.—A. Snape & Bro., P. O Box 240, Gordonsville, Va., want either a gas engine or steam engine and boiler; to be five

ille, Va., will want a second-hand gasoline engine of about s horse-power.

Grinding Mills.-The Piedmont Guano Charleston, S. C., will want mills for grinding lood, bones, etc.

Heating Apparatus.-The city of New Berne, N. C., is in want of heating apparatus. Address

Hoisting Engine.-John Chipman, Ocala, Fla.,

will probably want a hoisting engine.

Implement Factory.— R. A. Moore & Co. Wytheville, Va., will need outfit for agriculturallement factory.

Incline Railway.-Eugene T. Lynch, Jr., Memphis. Tenn., is in the market for a complete system for an incline railway three-fourths of a mile

ong. Iron Works.—E. H. Murrell, Lynchburg, Va., wants estimates on outfit of machinery for m ble iron works.

dry.-C. D. Clough, Lock Box 34, Lakeand, Fla, wants prices on steam laundry outfit. Locomotive.—John Chipman, Ocala, Fla., will brobably want tram locomotive.

Machine Shop.—R. A. Moore & Co, Wythe ville, Va., will need outfit for machine shop.

Marine Railway.—The Brunswick Foundry, Machine & Manufacturing Co., Brunswick, Ga., wants to correspond with firms that build and furnish marine railways, or that have them for sale in sizes of from 100 to 500 tons.

Mining Machinery.-The Lake City Land & Timber Co., Lake City, Fla., wants machinery for

Mixers.-The Palestine Mining & Petroleum Co., Palestine, Texas, will need mach nixing asphaltum.

Oil Mill Machinery .- Fowler Son, & Co., Gainesville, Texas, will purchase a cottonseed oil plant. Phosphate Mill.—S. R. Rentz, New River, Fla.,

ants to purchase a phosphate mill. Piping.-R. R. Ashbury, Pleasant Retreat, Ga will want iron piping 14 to 20 inches in diameter sheet-iron spiral pipe preferred, to bear pressure

Piping, Valves, &c .- The Elkin Manufacturing Co., Elkin, N. C., wants net cash prices on iron piping, valves and fixtures for water supply and

fire purposes. Pump.—John Chipman, Ocala, Fla., will proba-bly want 8x15 inch double cylinder pump, 6-inch

Pump and Hoist .- J. H. Hatch, Buford, Ga. uts to purchase a ste

Roofing.-Bier & Gilbert, Muenster, Texas. vant prices on roofs

Rope Machinery.-J. A. Coit, Marshall, Texas, vants to purchase rope making machinery

Saw Mill .- C. D. Clough, Box 34, Lakeland, Fla., wants prices on mill outfit to cut cord wood. Saws, &c — The Bartow Steam Wood-Yard, Bartow, Fla, wants bids on saws and splitters.

Shafting -The Piedmont Guano Co., Charles ton, S. C., will want shafting.

Stamp Mill.-R. R. Ashbury, Pleasant Retreat, Ga., will want machinery for stamp mill for gold

Steamboat Machinery.-E. R. Hathaway, Montezuma, Ga., wants prices on machinery for a stern-wheel steamboat 65 or 70 feet long.

Steam Shovel .- John Chipman, Ocala, Fla., may eed steam shovel.

Terra-cotta Pipe.-I. F. Woodward, Warsaw, ints terra-cotta pipe 30 inches in diameter for well curbing.

Tobacco Factory.—H. Clark & Sons, States-ville, N. C., will need a complete outfit of machin-ery for tobacco factory.

Tobacco Factory .- E. J. & A. G. Stafford, Ker-N. C., will need facturing plug tobacco.

Tobacco Factory.—O. L Williams, Farmington, N. C., will want outfit of machinery for a tobacco

Trunk Machinery, &c .- The Forest City Manuturing Co, Savannah, Ga., wank and tub making machinery.

Washer .- John Chipman, Ocala, Fla., may

Water Works.-The city council of Eagle Pass Texas, will receive sealed bids until October 20th for furnishing labor, machinery, material, etc. necessary for the erection of a complete system of water works in accordance with the following Two Worthington duplex compound pumps, ca. pacity 500,000 gallons per day; two steel b pacity 500,000 galions per day; two steel boilers, 50 horse power each; one feed pump; one stand tower, 16x100 feet; 25 Ludlow fire hydrants; 250 feet cast-iron pipe, 10 inches diameter; 550 feet cast-iron pipe, 8 inches diameter; 8,850 feet cast-iron pipe, 6 inches diameter; 8,850 feet cast-iron 4 inches diameter; 13,275 feet cast-iron pipe 27% inches diameter, and all necessary connec-tions. All necessary masonry and the pump-house to be constructed by the city. Bids must be accompanied by a certified check for \$1,000. In formation furnished on application. Address C. R. Prouty, mayor.

Water Works .- The city of Greenville, Tenn desires to contract for construction of water works. See Construction Department.

Water Works .- The city of Ozark, Ala., desires to contract for the construction of water works See Construction Department.

Wire Factory. -E. H. Murrell, Lynchburg, Va., vants estimates on outfit of machinery for a

#### A Great Bridge.

Amid the toot of whistles, the cheers of great multitudes, the snort of the iron horse, a chorus of blasts from steamboats, gala day decorations and boundless enthusiasm, that triumph of engineering architecture and mechanism, the great bridge connecting Cincinnati with Newport, Dayton, Bellevue and the rest of Kentucky, was opened August 29. Fire works, an immense procession, the presence of many distinguished men, speeches, processions and other demonstrations added to the jollification over the connecting link that brings all these cities so near together. In its description of the bridge the Cincinnati Enquirer has the following

"A wonderful feature of the bridge that has not been commented upon is the fact that it was designed and constructed by the King Iron Bridge & Manufacturing Co., of Cleveland, the pioneers and leaders in such enterprises. The company not only took the contract to span the Ohio with the finest structure in this country, but asumed the securing of the right of way in both cities.

"It was certainly a gigantic undertaking for one establishment, but the King co pany went at it in the very business-like manner that marks all of its great and small work, with the result of the magnificent bridge that now binds the two cities.

"The fact is that about all that the Central Bridge Co. had to work upon when the King company entered into the contract was a franchise. They not only engineered the complete business, from the stone work to the smallest details, but they most successfully placed all the bonds through Dan P. Eels, the well-known Cleveland banker, who is a director of the company. The original agreement was signed March 30, 1890, and, notwithstanding the continued obstacles, such as high water, etc., they completed the task, which is a grand monument to the enterprise and energy of a great firm. In size, length and strength the Central bridge is surpassed by but one highway bridge in American, and that is the great East River bridge connecting New York and Brooklyn."

THE Messenger, of Wilmington, N. C., "That the Wilmington Cotton Mills, of which Mr. W. A. French is president, are turning out some surprisingly beautiful work. They make 50 different styles in plaids and stripes, and while all are artistic, many of them are of most attractive designs. The excellent quality of the work is denoted by other Southern mills trying to copy these designs. The goods are, the Messenger claims, the finest in the South of the kind."

# Hercules Ice Machines

Ice Making, Cold Storage, Packing Houses, Breweries, &c.

nd for our new tilust, ated circular.

Hercules Iron Works,

Chicago, III.

## THE FRED. W. WOLF COMPANY.

802 to 330 HATHORN AVE.

556 to 566 N. HALSTED ST.

#### CHICAGO, ILL.

Brewery Work and Cold Storage our Specialty. Plans and Estimates Promptly Furnished.

C. R. MAKEPEACE & CO. ARCHITECTS and Mill ENGINEERS PROVIDENCE, R. I. Plans, Specifications and Estimates furnished for Cotton & Woolen Mills.

# LOCKWOOD, GREENE & CO. Mill Architects and Engineers

131 Devonshire Street, Boston, Mass.

SPECIALTY -

Plans, Specifications and Superintendence for the Construction, Equipment and Organization of Cotton, Woolen, Worsted and other Textile Mills.

# DREW, BALDWIN & CO.

COTTON MILL

# Architects and Engineers,

45 Broadway, New York.

#### CHARLES PAINE & SONS.

Consulting and Civil Engineers,
71 Broadway, New York City.

RAILROADS.

RAILROADS.

Equipment, Water Supply,
Yards, Signals, &c.
Examinations
Street Railways,
Power and Light Plants.

SINCLAIR & LEAVENWORTH,

CIVIL ENGINEERS,

\$25 Broad St. Chattanooga, Tenn.
Surveys and construction of Railroads, Water
Works and Sewers. Plans, specifications and
estimates furnished and construct on superintended. Examinations and reports of projected
railro d lines. Consultation and correspondence
invited.

#### The Carley AW MILL, W. D DUNNING,

340 W. Water St., Syracuse, N. Y. Send for Circular.

The Boomer & Boschert HYDRAULIC



# PRESS

FOR BALING
Cloth, Paper, Yarn, &c.
Or for any other purpose requiring great pressure.
BOOMER & BOSCHERT PRESS CS. 329 W. Water St., Syracuse, N.Y

# CONTRACTORS.



The Southern Equipment Co.

CHATTANOOGA, TENN.

# FAVA, NAEFF & CO. Architects # Engineers,

WASHINGTON, D. C.

Branch Offices-Charlottesville, Gordonsville, Va.; Charlestown, W. Va. Cumberland, Md.

#### WILSON & HUGGINS, ARCHITECTS.

Hotels and Public Buildings a Specialty. Correspondence Solicited.

#### D. D. ROGERS, Mining and Consulting Engineer.

Examination of the PHOSPHATES of FLORIDA a Specialty.

Established 1873. Marion Block, OCALA, FLA.

AM. Soc. C. E. M. AM. Soc. M. I OLIN H. LANDRETH, NASHVILLE, TENN.

# CONSULTING ENGINEER.

Water Works, Water Power Drainage, Re-clamation, improvement of Highways and Street Paving, Topographical Surveys and Maps. Ex-aminations, Expert Tests, Reports, Designs, Specifications and Estimates.

# JOHN MAG LEOD, M. Am. Soc. C. E.

Consulting & Civil Engineer

§y. Intimal lank Building, Institution, §y.
Surveys and Construction of Railroads, Bridges,
Deep Foundations and other Engineering works,
Plans, specifications and estimates furnished and
construction superintended. Examinations and
reports made of railroad properties, projected
lines, mineral & timber lands. Consultation invited

#### J. C. TEMPLE,

erly of Stout, Mills & Temple.] DAYTON, OHIO.

Hydraulic and Mechanical Engineer.

Improvement of Water Powers, arrangement Power Plants, Shafting, etc. Plans and Specific tions for Construction and Equipment of Papend Pulp Mills.

## ARTHUR F. GRAY

MILL ARCHITECT & ENGINEER

53 State 4 19 Xilby Sts., Exchange Building, BOSTON, MASS.

Textile and other Industrial Flants designed, Machinery and Power arranged and construction superintended in a thorough manner.

OSCAR SAABYE, Mem. Am. Soc. C. E.,

CONSULTING CIVIL ENGINEER, ROANCKE, VA.

Railroads, Bridges, Sanitary Engineering and Superintendence of Work.

JOSIAH PIEROE, JR.,
Civil and Topographical Eng., A. M. I. C. E.
Office. 11 South Street, Baltimore, Md.
Past connections—Northern Transcontinental
Survey, U. S. C. & G. Sarvey, U. S. Geol. Survey,
Ordnance Survey of Great Britain, Asst. Eng.
Irrigation U. S. G. S.
All classes of topographic mapping, city, county
and state surveys, estates, and landscape gardening, triangulation and expert lustrumental work
goranism or rescueded.

CORRESPONDENCE

# WALTER A. CALHOUN, G.E

ENGINEERING AGENT.

Estimates Furnished on PLANS AND SPECIFICATIONS, Reports and Consultations. SPECIALTIES

## WATER WORKS AND WATER SUPPLY.

Gas Works, Sewerage, Filters, Railroads, Bridges GRAIN ELEVATORS, FLOUR MILLS & MACHINE PLANTS COMPLETE In any part of the Country. Corresp

Main Office, GREEN BAY, WIS.

ANALYSES.

# LEDOUX & COMPANY.

CHEMISTS.

No. 9 CLIFF STREET,

NEW YORK.

Are the OFFICIAL CHEMISTS of the NEW YORK PRODUCE EXCHANGE and THE LINSEED ASSOCIATION.

Also, Analysts to the NATIONAL LEAD & OIL CO.

Analyses of Paints, Oils, Chemicals, Phosphates, Fertilizers, Minerals, Waters, Pyrites, Etc., Etc., Expert Examinations and Investigations of Processes and Chemical Works.

SEND FOR TERMS

## T. WILLIAM HARRIS, CONTRACTOR.

Street Railways.

# ARCHITECT.
Private Residences a Specialty.
Spartanburg. N. C.

S. B. MOSBY & CO.

Engineers & Contractors,

BEDFORD CITY. . . VIRGINIA.

Railroads surveyed and estimates of cost furnished. Contracts entered into for the construction of railroads, canals, water works, sewerage, etc. Town-sites laid off. Mineral lands surveyed and reported on

Civil Engineers and General Contractors, Farmville, Va. and Arvonia, Va

Surveys made and estimates furnished for railroad and municipal work. Special attention given to laying off towns and cities. Correspondence solicited.

F. FELKEL.

155 ST. OLAIR STREET, CLEVELAND, O.

Iron Buildings, Large Span Roofs, PLANS for Manufacturing Plants, Wavehouses

Brothers de Saussure & Waters,

ARCHITECTS.

ects of the new "Academy of Music.

Plans, Specifications and Superintendence. Fresco, Painting and Artistical Work,

T. JASPER COLLINS. WM. T. HACKETT.

Architects and Mechanical Engineers,

ROOMS 27 and 28 CROWLE BUILD STAUNTON, VIRGINIA.

Drawings, Specifications and Superintendence Furnished for all kinds of Buildings, Ma-chinery, &c., at Reasonable Rates.

JOHN SANDERSON, F. C. S. A. I. C.

Assays and Analyses of Ores, Minerals, Metals,
Coals, Waters, Fertilizers, Foods, Commercial
Articles, etc., etc.

OFFICE AND LABORATORY

CUMBERLAND AVENUE, bet. 18th and 19th Streets, MIDDLESBOROUGH, KY.

Edwin F. Partridge, Prest.; Jos. W. Hawley V.-Prest.; H. Bayard Hodge, Sec.; Wm. S. Perot, Jr., Treas.; Jos. S. Keen, Jr., General Manager.

The AMERICAN PIPE MFG. CO. Phipps' Hydraulic Pipe a Specialty. Engineers & Contractors for Water Works.

Solicit correspondence from town wishing to build upon franchise plan. Factory, Germantown Junction; Office, Room 24, 1326 Chestnut st., Phila-

ROANOKE, VA.

ROBERT MILLER,

Water Works.

OFFICE, 44 BROADWAY. NEW YORK.

SOUTH PITTSBURGH, TENN.

#### GEORGE N. COMLY, Consulting Mechanical Engineer,

904 ADAMS STREET,

Wilmington, - Delaware. CORRESPONDENCE SOLICITED.

W. H. GIBBES, JR., & CO. COLUMBIA, S. C.

Engineers, Contractors and Dealers.

A. O. MOLWAINE Late of Sav., American & Montg'y R. R. H. B. NocaoLas, Late of Orange-Keynville & B. and Loma W. A. P. Fertilizer Factories and Acid Chambers, Electric-light Plants of any size and kind. The best ser-vice and best machinery at close prices. MelLWAINE, NICHOLAS & DAFTER

#### D. R. LEAN.

ENGINEER AND CONTRACTOR.

PITTSBURGH, PA.

Blast Furnace and Steel Plant Construction. Sole agent Ford & Moncur's Patent Fire Brick Stove. CIVIL ENGINEER AND ARCHITECT,

A. W. SWANITZ, CONSULTING ENGINEER,

Ice and Refrigerating Machinery, Correspondence Solicited.
701 Stock Exchange Building,
CHICAGO, ILL.

Washington Laboratory & Metallurgical Works: CHEMICAL AND METALLURGICAL STANISATIONS. ANALYSES AND REPORTS.

FREDERIC P. DEWEY,

821 F. Street, N. W. Washington, D. C.

ASSAYERS AND CHEMISTS,

#### ASSAYS AND ANALYSES OF ALL KINDS, such as Ores, Alloys, Metals, Water for Boiler Purposes, &c.

MARINER & HOSKINS, 81 S. Clark Street (top floor), CHICAGO, ILL.

WALKER BOWMAN, Ph. D. Analytical Chemist,

Analysis of ores, metals, coal, limestone, min-ral waters, fertilizers, technical products, etc.

Office and Laboratory, 76 Broad St., New York, Correspondence Solicited.

If you wish to heep posted on the prog-RECORD. Price \$4.00 a year.

# THE WASHINGTON HYDRAULIC PRESS BRICK COMPANY,

Ornamental, Pressed, Rock-Faced and Roman Brick Round to any Radius. In Red and Brown Colors.

BRICK FOR ARCHES

BLACK. BUFF.

OFFICE: Kellogg Building, Washington, D. C.

Correspondence Solicited.

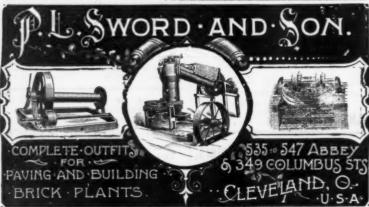


# Chambers' Brick Machinery



5.000, 25,000, 50,000 per day Car GUARANTEED AND FURNISHED ON THIRTY DAYS' TRIAL.

CHAMBERS BROS. CO., Philadelphia, Pa





Brick Machinery

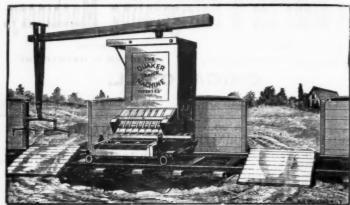
Pug Mills, Crushers, Elevators, Etc.

J. W. PENFIELD & SON WILLOUGHBY, OHIO, U.S.A.



#### Improved Brick Machinery

AND BRICK MAKERS' SUPPLIES.



THE NEW QUAKER HURSE-POWER BRICK MACHINE, Steam-power 25,000 to 40,000 per day. Capacity 15,000 to 20,000 per day. Spiral Pug Mills, Mold Sanding Machines, Molds, Barrows, Trucks, &c., &c. We contract to furnish and Equip Complete Yards, Engines, Boilers, Shafting, Pulleys, Belting, &c., &c. Send for illustrated Catalogue. Correspondence Solicity.

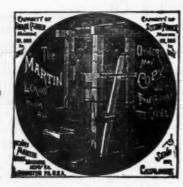
## FLETCHER & THOMAS, Indianapolis, Ind.

Dealers in

Engines, Boilers,

Shafting, Pulleys, Belting.

Etc.



BRICK MACHINERY, CLAY ELEVATORS, CLAY CRUSHERS & DISINTEGRATORS. PUG MILLS. BRICK MOULDS & BRICK MANUFAC-TURERS' OUTFITS IN GENERAL.





Union Foundry & Machine Works, MANSFIELD,



# EIN FITTING MACHINES

For Fitting Cast Iron or Steel Skeins.

The bard and most particular work of WAGON BUILDING by MACHINERY, and dry hickory axles furnished with as fitted on, all complete, with the set and gather for wheels one-half inch dish. The accompanying engraving represour wagon axles as fitted up by us ready for the market, or ordering give exact width of track from center to center of CAST IRON SHAMLESS SKEINS, metal warranted one-quarter thick, and take in more wood than any other Skein it betet. Write for prices. We do not manufacture any wheels.

# The POTTS BRICK MACHINES

MANUMACTURERS OF

Horizontal Stock Brick Machine, Disintegrators, all sizes, Mold Sander, Pug Mills and Elevators.

We always carry a large stock of Brickmakers' Supplies, as Molds, Trucks, Barrows, Dumj Cars, Winding Drums, Kiln Doors, Grate Bars, Shafting, Pulleys, Belting, &c. Complete Outfits a Specialty.

C. & A. POTTS & CO.,

Indianapolis, Ind.

# THE DENN WARPER

WITH NEW DOUBLE LINKER,

Makes the BEST WARP in use.

SEND FOR CUTS AND PRICES.

Single Linkers Altered to Double Linkers

GLOBE MACHINE WORKS,



# Manufacturers and Builders

Should not lose sight of the fact that our material has been well established and a favorite with the public for years. Why experiment with the untried? Why "fool" with so-called "cheap" stuff?

Our line embraces all the time-tried and desirable styles, the different sizes of Corrugated Roofing and Siding, Standing Seam, Roll and Cap, V Crimp and Outcalt Patent Plain Roofings; also the best and most practical in Arches, Ceilings, Metallic Lath, etc., etc.

Address for samples, estimates, etc.

# THE CINCINNATI CORRUGATING CO.

PIQUA, O.

BOX 226.

Advertise in the Manufacturers' Record.

# COWELL MACHINE SHOP,

LOWELL MARS.

# Cotton Machinery

We Manufacture Everything Required for the Comple Equipment of Cotton Mills.

Plans and Estimates Purnished on Application.

Correspondence Solicited.



Cotton Seed Oil Mills We are making Various Sizes, from the PLAN-TATION MILLS of five tons to the LARGE CITY MILL of fifty tons per day. Our Mills have all the Latest Modern Improvements in Machinery, and produce the very best results.

Hydraulic Cotton Presses POWERFUL. Worked either by Hand or Steam-power. Not liable to get out or order and very durable. They are the BEST BALEING PRESS made for Cotton, Wool, Rags, &c.

Threshers and Cleaners Simplest, Cheapest and Best Made.

Information furnished upon application to

THE CARDWELL MACHINE COMPANY, RICHMOND, VA.

# VAN WINKLE GIN & MACHINERY CO.

ATLANTA, GA., and DALLAS, TEX.



COTTON GINS, FEEDERS, COMDENSERS AND PRESSES, Cotton-Seed Oil Mills

ICE MACHINERY.

SHAFTING, PULLEYS, WIND MILLS, TANKS, PUMPS, Etc.

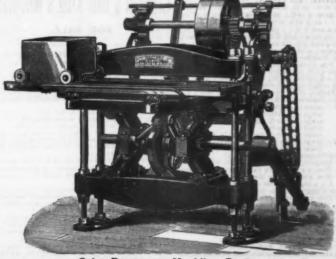
# Cotton-Seed Oil Machinery

**\*** CET THE BEST.

Presses, Pumps, Cake Form Meal Heaters, Chilled Roll Crushers, Etc.

Our Oil Presses are fitted with Tiffany Oil Mats, Steel Boxes, Cast Steel Cylinders.

NONE BETTER.



Cake Former or Moulding Press.

# THE G. H. BUSHNELL CO.

Send for Cuts and Prices

THOMPSONVILLE, CONN.

For Salo.

## Railway Equipment

If interested send for our Catalogue No. 14, just sued, of Locomotives, Cars, &c., of every de-ription, for all kinds of work.

A. S. MALES & CO., 15, 16 and 17 Actna Building, Cincinnati, 0.

# Up Head of Class A

and still snapping our fingers.

## MACHINERY

We can show you how to belt up your energy to the ordinary silver dollar so as to bring your whole fortune into profitable activity.

But jokes aside, the very complete line of machinery agencies which we control is the result of ten years of careful select on among the best and most progressive manufacturers. American Machinery.

Do not content yourself with wondering if THE PENNSYLVANIA LIMITED has this or that machine. WRITE TO US

THE PENNSYLVANIA LIMITED has this or that machine. WRITE TO US

We have three warehouses filled with machinery for immediate delivery, and are confident we can save you meney on any machinery purchase you may contemplate.
Engines, Horizontal.
Engines, Vertical.
Boilers, Vertical.
Boilers, Vertical Steam Hammers.
Boilers, Vertical Steam Hammers.
Switch Planers.
Soliters, With quick return, from 18 in. to 76 in.
Crank Planers.
Friction Shapers.
Friction Shapers.
Friction Shapers.
Friction Shapers.
Boil Cutters.
Botl Cutters.
Botl Cutters.
Botl Cutters.
Belting and Lacing.
Wood Mortisers.
Moulding Machines.

Ke, &c., &c.

In fact, everything in the way of Machinery for Motive Power, and for working in Iron or Wood.
Correspond freely with us.

#### PENNSYLVANIA MACHINE CO., LIMITED.

31 W. Seventh Street, Philadelphia, Pa.

(Successors to H. B. Smith Machine Co., Phila.)

chnck.

BECOND-MAND MACHINERY.

1 h., planes 9 ft. long, 36 in.x96 in.

1 planer, planes 6 ft. long, 46 in. wide.

1 Planer, planes 6 ft. long, 46 in. wide.

1 Planer, planes 6 ft. 24x4 in.

Engine Lathe, 14 ft. bed, 32-in. swing.

Chuck in grant planer in grant planer.

Engine Lathe, 16 ft. bed, 24-in. swing.

Chuck in grant planer.

10 inch Plan Drilling Machine.

11 ft. 3 in. Stevens' Pulley Lathe.

12 junch Hewes & Phillips Shaper.

48-in. Vertical Boring Mill.

Automatic Rack-Cutting Machine.

General Bar Iron Shears, cuts 4x1 in.

11 ft. 3 in. Stover Dimension Planer.

Send for list Second-hand tools.

NEW YORK MACHINERY OEPOT,

Brockivs Bridge Store, 16. New York

re, 16. New York

MACHINERY IN STOCK.

ENGINE LATHES,—63 inches x 22 feet; 56 in. x 18 ft.; 52 in. x 20 ft.; 48 in. x 18 ft.; 42 in. x 12 ft.; 32 in. x 12 ft.; 29 in. x 13 ft.; 48 in. x 18 ft.; 42 in. x 21 ft.; 32 in. x 12 ft. x 20 in. x 13 ft.; 44 in. x 63 in. 21 ft.; 10 in. x 6 and 8 ft.; 1 each 16 in. x 6, 8 and 10 ft.; 1 each 17 in. x 6 and 8 ft.; 1 each 12 in. x 5 ft.; 2 each 11 in. x 4 and 5 ft.; 2 each 11 in. x 4 ft. x 6 in. x 6 ft.; 1 each 12 in. x 6 ft. 3 ft.; 1 each 12 in. x 6 ft. 3 ft.; 1 each 12 in. x 6 ft. 3 ft.; 1 each 12 in. x 6 ft.; 14 in. x 6 ft.; 15 in. x 6 ft.; 15 in. x 6 ft. 3 ft.; 1 in. x 6 ft., 18 in. x 6 ft. Turret Lathe; 1 each 12 in. x 6 ft., 16 in. x 6 ft., 16 in. x 6 and 8 ft. 21 in. x 8 and 10 ft. Engine Lathe Taper.

I ron Planer, 6 in. x 16 in. x 9 ft.

I yoxyo in. x 6 ft.

I yoxyo in. x 9 ft., with one head.

I yax4 in. x 12 ft., with two heads.

Friction Shapers, 12 in., 22 in., 32 in.

Friction Shapers, 13 in., 22 in., 32 in.

Friction Shapers, 12 in., 22 in., 32 in.

Friction Shapers, 12 in., 22 in., 32 in.

Friction Shapers, 12 in., 32 i MACHINERY IN STOCK.

RESTINS TOOL & SUPPLY CO.

## **NEW TOOLS**

For Immediate Delivery.

ENGINE LATHES, 14 to 38 in. swing. ENGINE LATHES, 14 to 38 in. swing.
SHAPERS, crank and Geared.
DRILL PRESSES, 20 to 40 in. swing.
PLANERS, MILLING MACHINES, TURRET,
FOX and SPEED LATHES.
PULLEY LATHES, PUNCHES, Etc.
Write for complete lists.
LODGE & DAVIN MACHINE TOOL CO.

WORKS, CINCINNATI, O. Eastern House, 61 Courtlandt Street, New York. W stern House, 68 & 70 S. Canal St., Chicago. Store S.E.Cor.Water & Market Sts., Pitsburgh. Boston Office, No. 24 and 25 Purchase Street.

# PUMPS. BLOWERS. ENGINES.

6-foot Blower, with Engine attached, \$2 o.
30-horse Steel Upright Boiler and fittings, \$225.
20 horse Horizontal, \$150.
30-horse Horizontal Engine, heavy, \$25^.
1½ and \$5 horse Baxter Engines, equal to new.
4 horse Steel Boiler.
2-horse Cut-off Engine, new, \$50.
Large Water Motor, \$7
Pulsometer Pumps, No. 3, \$75. No. 4, \$100. No.
5, \$1.25. Eq. al to new.
Guild and Garrison Pump, No. 2, \$75.
Engines, Boilers and Pumps of every description.
Write what you wani. We can supply you,
Exchanging.

MASLINS,

165 First Street, JERSEY CITY, N. J.

For Sale-Second-Hand Hoisting Engines.

One tox12 in, Lidgerwood Hor, Hoisting Engine Single cylinders, single drum, without boiler. One 6x12 in, Look, Rymes & Co. Hor. Hoisting Engine. Single cvl., single drum, with boiler. One 6x2 in. Kendall & Roberts Hor. Hoisting Engine. Double cyl, single drum, with boiler. One 7x o in. Lidgerwood Hor. Hoisting Engine. Single cylinder, single drum with boiler.

NEW HOISTING ENGINES-Immediate Delivery. NEW HOISTING ENGINES—Immediate Delivery.
One 7x10 in. Hor. Hoisting Engine. Double cyl.
double drum. with boiler. (Mundy friction.)
One 6x x8 in. Hor. Hoisting Engine. Doublecyl.
double drum, with boiler. (Mundy friction.)
One 7x10 in. Hor. Hoisting Engine. Double cyl.
single drum, with boiler. (Mundy friction.)
One 5x7 in. Hor. Hoisting Engine. Double cyl.
single drum, with boiler. (Mundy friction.)

L. F. SEYFERT'S SONS, Nos. 427, 439, 441 N. Third St., Philadelphia, Pa.

#### WOOLEN MACHINERY FOR SALE.

2 30-in. Iron Frame Wool Pickers.
2 Shodity Pickers (1 Kitson, 1 Butterworth).
2 sets 4-in. Iron Frame Cards complete.
5 sets 40-in. Iron Frame Cards complete.
2 Self-to-erating Jucks, 2 in. gauge.
5 100-in. 3x3 box Crompton Looms, 4 horness.
4 91-in. 3x3 box Crompton Looms, 4 horness.
1 3cim. Sargent Burr Picker.
1 Uhli ger Hydro-Extractor, engine driven.
2 Cleveland Hydro-Extractor, belt driven.
2 Warping Mills, Broad Reels and Beamers coplete.

2 Warping Mills, Broad Reels and Beamers complete.
248 in. Solid Ring Burr Cylinders.
2 30-in. Double Custom Roll Cards.
2 24-in. Double Custom Roll Cards.
2 Clotn Winders.
1 Donble Cyrinder Cloth Brush, Cleveland.
1 Wool Duster, Davis & Furber.
6 Curtis & Marble Double-Acting Gigs.
16-4 Gessner Cloth Press, double bed.
3 ½ Shearing Machines.
4 Cleveland Ysrn Spoolers.
1 Side-Drawing Spooler with back stands.
1 40-apindle 3½-in. ring Twister.
1 80-spindle 2-in. ring Twister.
Together with a 'arge assortment of other cotton and woolen machinery.

O. B. ARNOLD,

84 Washington Street.
Chicago, Ill.

Chicago, Ill.

86 Washington Street,

# Crowder's and King's Mountain

FOR SALE.

THIS HISTORIC MOUNTAIN, with about 25,000 ACRES OF LAND is now on the

market.

HERE IS WHAT WE HAVE.

Some nice residences in the beautiful town of
King's Mountain, also a large number of building
lots. This town is on the Richmond & Danville

King's Mountain, also a large number or bustom, lots. This town is on the Richmond & Danville Railroad.

Three miles from here is the lofty pinnacle of King's Mountain; eight miles brings us to the Battle Ground with its beautiful monument.

This mountain lies parallel with the great belt of minerals, which run from Virginia to Georgia, and on it we have a large amount of extra fine MARBLE of all colors.

ROOFING AND PENCIL SLATE in quantities not to be soon exhausted. A large amount of FLAGGING SLATE and some fine quarries of Building Rock.

Gold is found in paying quantities in a number of places. At two points there have been mills, and much Gold has been made, also Barytes pure, and with Gold, Silver and Lead.

There is running through this property for more than ten miles a MANGANESE VEIN of great width, analyzing in some places on the top of the ground 479 of metal.

We have two well-located points for Iron and Steel Plasts with good ore enough to run them for all time, and in less than one mile from these points are Limestone and Fire-Proof Clay in very large quantities.

We also have three good Gold Mines and other Mineral Lands for sale. Address

points are Limestone and Fire-Proof Clay in very large quantities. We also have three good Gold Mines and other Mineral Lands for sale. Address

REV. P. R. RLAM.

King's Mountain, Cleveland County, N. C.

#### MACHINERY (In Stock.)

Planer, 76 in. wide, 54 in. high, 25 ft. long. Two be ts. Auto. feeds. "Betts Make." Good order. Price Low. Paner, 24 in. x 7 ft. New Haven. Good order. Engine Lathe, "new heavy pattern," 32 in. swing 18 ft bed. Spindle 4 in., cone 18 in., belt 4 in. Engine Lathe, 25 in. swing, 12 ft. bed, complete. New Haven Make Fair. Chean Engine Lathe, 13 in. swing, 12 ft. bed, complete. New Haven Make Fair. Chean Engine Lathe, 13 in. swing 6 ft. bed. Complete. With hollow spindle, 36 in. hole. New. Special low prices

With follow spindle, % in hole. New. Special low prices
Shapers 5 in, friction. "Hendey's make."
Late pattern. Good order.
Sha'ers, 15 and 24 in "New patterns"
Drill, 3-pindle Pratt & Whitney Good order.
Drill Radial New pattern. 3 ft. arm
Upright Boring & Turning Mill, 38 in. swing.
Complete. J. J. McCABE, 68 Cortlandt St., NEW YORK.

#### FOR SALE

16-Roll Single Surface Planer and Matcher. 275
14-Roll Single Surface Planer and Matcher. 200
15-Ray Power Mortiser with Boring attachmit 13
1 Lane & Bodley Railway Cut-off Saw, large 70
25-Ray & Co. No. 8 14-inch 6-Roll Fast Feed Flooring Machines, each. 500
1 Rogers 2 Spindle Shaper Wood Tap. 500
1 Scroll Saw. 500
14-inch Centrifugal Pump. 500
14-inch Centrifugal Pump. 501
14-inch Double Surfacer, with counter. 501
124-inch Double Surfacer, with counter. 301
124-inch Double Surfacer, with counter. 305

JAMES JENKS, 199 Jefferson Avenue, DETROIT, MICH.

SECOND-WAND MACHINERY FOR SALE.

BEGOND-HAND MAGMINERY FOR SALE.

Planer, planes 32 in. wide, 24½ ft. long. Betts.

Planer, planes 72 in. wide, 12½ ft. long. L. W. Pond
The above tools can be seen running.

Planer, planes 30 in. wide, 8 ft. long. D.W. Pond.

Planer, planes 30 in. wide, 8 ft. long. D.W. Pond.

Planer, planes 30 in. wide, 5 ft. long. Cove M. Co.

Engine Lathe, 54 in. swing, 20 ft. bed. Putnam.

Engine Lathe, 54 in. swing, 20 ft. bed with three
tool shalting resis. D. W. Pond.

Engine Lathe, 16 ft. swing, 8 ft. bed, taper attachment. Wheeler.

Upright Drill, 30 in. swing. Putnam Machine Co.
2 Bement Double Stay Bolt Cut ers.
1 36 in. Snyder Patent Upright Drill. New.

CEORGE PLACE.

CEORCE PLACE,
NEW YORK. No. 120 Broadway.

## Second-Hand Machinery

FOR SALE.

Double Battery four Steel Boilers, 54x18, 166-in. lap-weld-d tubes riveted in c mplete; used two years; will sell one battery. 72x18 Steel Tubular 64 4-in. tubes complete; used

ao montha, 25 H. P. Fire Box Boiler, 34 3-in, tubes complete. Stationary Tubular, 1 x42, complete. Stationary Tubular, 1 x42, complete. Englises to 14, 15, 16, 20, 25, 50, 40, 51 H. P. complete. Figure 10 14, 15, 16, 20, 25, 50, 40, 51 H. P. complete. Pulper, Statium Fulper, Fulleys, Hugers, Belting, Ingers. Il No. 26 Rock Drill, Miscellaneous Machinery of all kinds. Correspondence solicited.

ECONOMY MACHINERY CO.

104 East Pearl Street.

CINCINNATI, O.

#### Trustees' Sale at Public Auction.

The Planing Mill. Sash and Door Factory of The Planing Mill, Sasa and Door Factory of the Sturdevan & French Manufacturing Co., at Radford, Va., will be sold Wednesday, September 39, 1891. Plant is new and valuable. No com-petition. In a growing city. A rare chance for the right man. Easy terms.

G. B KIMBALL, Trustee,

Radford, Va.

## FOR SALE.

DESCRIPTION OF PROPERTY.

DESCRIPTION OF PROPERTY.

437% acres of land; 100 of this amount fine bottom land, about one-half of total amount cleared, balance in woods. Six good tenement houses on place and number of homes and other buildings, including blacksmith shop, one large water cotton gin and one three-story merchant mill now running profitally and in good repair; grin's 20 bushels corn per hour and 15 bushels wheat per hour. The water-power finest in Georgia, having a fall of 75 feet in distance of 00 vards. Not rouble in c 380 of freshets, and supply inexhaustible in divest veather; p esent dam four feet high. Finest site on earth for factory, and millions of best grani e to build or quarry for market. Sivated three miles weet of the growing and enterprising town of Thomasto, Upson county Ga., where the new trunk line Macon & Birmigham passes a branch of the Central Railroad. A survey will be made in a few days from Thomaston to this great water-po-er, and by following two branches there is only one sho tout to be excavated, a dthe road can be built at a small cost. Price of property including sli improves ents, \$15,000 cash Tit'es perfect. Apply to

THOMAS M. MATTHEWS.

Thomaston, Ga

GEORGE PLACE.

Equipment of Railway and Car Works EQUITABLE BUILDING, 190 Brondway. - NEW YORK

CARLISLE MFG. CO. Gars, Engines, Frogs AND SWITCHES, CARLISLE, PA.

## BARGAINS.

Standard Gauge Locomotives, 60,000 pounds weight, Sand Crushers, Rock Crushers, Cornish Rolls, Thirty-sis Second-hand Engines in perfect order, Locomotive Boilers, Horizontal Return Tubular Boilers, Upright Boilers practically new. If you need Machinery it will pay to write us.

CHESTER BERTOLETTE & CO.

NORRISTOWN, PA.

#### RAILS STEEL

And Track Material complete for Logging and Mining Roads and Industrial Enterprises on the

## Instalment Plan.

Payment, cash margin 25 per cent., balance onthly for 24, 36 or 60 months. Also

Locomotives and Cars

The STEEL RAIL SUPPLY CO. HUMPHREYS & SAYCE, Mgrs., 10 Wall St., New York.

#### BOILERS, ENGINES. LIGHT LOCOMOTIVES.

RAILS and EQUIPMENT, Cotton Gins, Saw Mills, Wood - Working Machinery, and Heavy Hardware.

F. A. ESTEP.

OFFICE AND WARRHOUSE:

Corner Market and Cowart Streets, CHATTANOOGA, TENN.

A BARGAIN.

#### A FINE FURNACE PROPERTY FOR SALE.

1320 Acres of Mineral land in a large mineral district. Modern Furnace, Ore and Coal Mines, with Coke Ovens, Fire-clay, Natural Gas, four miles broad gauge railroad connecting with trunk line, 75 dwelling houses for men, store, stables, all tools for working lurnace and mines, mules, horses, two locomotives, 14 railroad cars. For further particulars address

"FURNACE,"

Care MANUFACTURERS' RECORD

FOR SALE.

#### SECOND-HAND STEAM PLANT.

All in good condition, divided to suit.

One Corliss Engine, 26x48-in., 300 H. P. One Condensing Corliss Engine, 30x72 in., 600 H.P. Three Tubular Boilers, 72 in. dism.xii ft. long. All the above can be seen at Davol Mills, Fall River, Mass. Ready for immediate delivery.

ROBERT WETHERILL & CO. CHESTER, PA.

FOR SALE.

# Cotton Machinery

One hundred and eight 36 inch Cards, with 18-inch doffers, fast combs, sell-strippers, well clothed; also 12 Railway Heads with first class eveners; 2 good Doubler Heads, with 54 cards running into each head. The machinery can be seen at the mill in working order.

DAVOL MILL,

FALL RIVER, MASS.

FOR SALE. RAILS, SPIKES, FASTENINGS, FROGS, SWITCHES AND CROSS-

Complete Outfits for Logging Roads and Street Railways. New and Second-band.

WILLIAM MINNIGERODE, Dealer in Railway Supplies,

Lynchburg, Va

#### TRADE NOTES.

D. R. LEAN, engineer and contractor, of Pittsburg, Pa., has received the contract to build the new fire-brick works of the Kentucky Fire Brick Co., at Glenn City, Lewis county, Ky. The kilns will be those of the regenerative system, patented by James Dunnachie, of Glasgow. Scotland. The plant will be supplied with an iron draught stack 130 feet high by 7 feet diameter and Wellman gas producers.

THE Providence Steam & Gas Pipe Co, of Boston, Mass., manufacturers of the Grinnell automatic sprinkler, have re-ceived a letter from E. E. Hillard & Co., Buckland, Vt., which refers in the most flattering terms to the effective work of these sprinklers during the recent fire in their factory. Hillard & Co. in their let-ter state that: "The fire occurred in our stock-room, adjoining the picker-house, where there were no sprinklers, and in what we considered the safest part of our mill; it connected with the picker-house, but damaged the roof only of that build-ing. This latter building was supplied with your sprinklers, and they all went off, no doubt saving damage there. The fire also threatened the mill, and we think it would have been in danger of being totally destroyed had it not been for the sprinklers near the belt hole that let the fire into the mill. Four sprinklers were melted at this point. The water supply was from a tank on the top of the mill, 8 feet deep, and it only drew about 20 inches from this during the fire. We have a force pump which was applied as soon as the fire was discovered, and it was by that means that the blaze in the stock in the stock-house was extinguished. The loss will be some-thing like \$4,000. The cause of the fire, we think, without a doubt, was spontaneous combustion, although in an experience covering over 60 years this is the first instance that we have ever had of that kind."

# The Cincinnati Corrugating Co. Making Terne Plates.

[Daily Call, Piqua, Ohio.]

The Cincinnati Corrugating Co, of Piqua, Ohio, has been considering the manufacture of terne plates, or tinned roofing plates, as an adjunct to their present large line of painted roofing she ts. In order to satisfy themselves of the adaptability of the steel sheets supplied them by their allied company, the Piqua Rolling Mill Co., they have recently made a quantity of 14x20 terne roofing plates with great success.

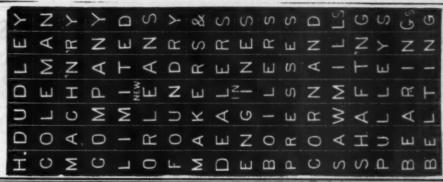
This experience demonstrates fully that the quality of the steel plates used for coating meets the highest requirements.

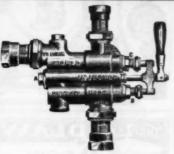
The terne coating, composed of tin and lead, resulted beautifully, equalling in the opinion of experts, in appearance and all other respects, the "old style" hand-made ternes hitherto imported from Wales.

The champion of American protection, Major McKinley, will address the citizens of Piqua, September 17th, and the success of the Cincinnati Corrugating Co. has added so much to the enthusiasm of the occasion that the executive committee have ordered 5,000 souvenirs made of Piqua terne plate mounted on ribbon badges for distribution.

The souveners will be circular in form and have thereon the words "Ohio Sheet Steel, California Tin, Missouri Lead, Piqua, 1891—McKinley and Protection." At the meeting full-sized sheets will be conspicuously displayed.

These are the first terne plates in Ohio, and, so far as we are advised, the first purely American terne plates have been made at Piqua, Ohio, for in their composition not an ounce of foreign material enters. California furnished the pig tin, Missouri the pig lead, and the Bessemer





# THE BEST INJECTORS IN USE.

Adapted for All Conditions. High or Low Steam. Long Lift or Short.

Water Works Pressure or Tanks. It Always Works.

It is the EASIEST TO HANDLE, being

OPERATED ENTIRELY BY A SINGLE LEVER.

Each Injector is carefully tested before leaving the factory and is

GUARANTEED RELIABLE

AMERICAN INJECTOR CO., Manufacturers,

DETROIT. MICH.

# THORNBURGH & GLESSNER



PSALE AGENTS:

RUMSEY & SIKEMEIER, St. Louis, Mo. THE AHRENS & OTT MFG. CO., Louisville, Ky. MILNER & KETTIG, Birmingham Ala.

office and saleshoom,
110-112 S. Jefferson St.
CHICAGO, ILL.

rew Conveyor.



# Mill and Elevator Supplies and Equipment.

ELEVATORS, FLOUR AND CORN MILLS, COTTON-SEED MILLS, ETC., FULLY FURNI HED AND EQUIPPED THROUGHOUT.

# PHOSPHATES, COAL and MINERAL SPECIALTIES.

steel used was made at Middleport, Ohio, and rolled by the Piqua Rolling Mill Co.

The Circionati Corrugating Co. cla m no other merit in this than that they give to all the results of their experience—that all that is necessary to test the practicability of making American tin or terne plate is to make them. Having satisfied themselves on the point of practicability, the next steps will be pursued, as in any other branch of manufacture, to obtain the best facilities for economic manufacture for the regular production of American terne or tinned roofing plates.

To Southern corporations, bankers and brokers: The Manufacturers' Record will give investment offerings four insertions free, announcements not to exceed one inch in space.

COTTON machinery, used but in good working order, consisting of 36-inch cards with 18-inch doffers, fast combs, self strippers, well clothed; 12 railway heads with first-class eveners, 2 doubler heads with 54 cards running into each head, for sale by Davol Mills, Fall River, Mass. See advertisement page 46.



Improved Screw Cutting LATHES

Drill Presses, Shapers, Band, Circular and Scroll Saws, Machinists' Tools and Supplies. Lathes on trial. Catalogue mailed on application.

THE SEBASTIAN - MAY CO. 182-188 Highland Ave., Sidney, Ohio.



# COMPLETE STEAM PLANTS

2 to 1000 Horse-Power,

Vertical, Horizontal, High-Speed Automatic, Corliss, Compound and Compound Condensing Engines. Pumps, Etc. Bollers, Every Description. Saw Mills, Grinding Machinery, Chain Belting.

ROCK DRILLS.

ICE-MAKING MACHINERY.

100 POUNDS TO 100 TONS.

IRON AND BRASS CASTINGS, REPAIRS.

#### SIMPKIN & HILLYER.

1105 MAIN STREET, RICHMOND, VA.

OVER 50 ENGINES IN STOCK. Write for Catalogue.

SPECIALTY OF SMALL ISOLATED ELECTRIC-LIGHT PLANTS.



Maslin's Patent Steam Pump.

at and Best Automatic Steam Va-comp. Handles Dility and GRITTY Swithout Off or Care. Simplest of durable Fump made, as partial in of two bolts makes every valve accessible. Fumping Plants for tors. Irrigation, Water Works, if, Mining and General Hydraulic se. Bend for Circulars.

JOHN MABLIN & SON,

#### The Improved Steam Pump

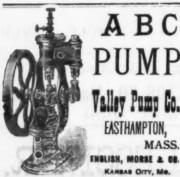


For emptying or fil-ing vats or tanks and distributing liquors from one tank to an-other or throughout

the building.
Send for catalogue
sifting, mixing, drying
machinery and pumps.

J. H. DAY & CO. Cincinnati, Ohio.

Branch offices, New York and Chicago.







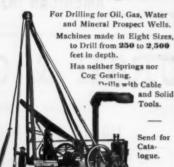
Aurora, fil.

WELL DRILLING MACHINERY. WILLIAMS BROTHERS, ITHACA. N. Y .. Mounted and on Sills, for deep or shallow wells, with steam or horse power. Send for Catalogue.

Williams Brothers ITHACA, N. Y.

#### ARE YOU AFTER MONEY?

# Star Portable Drilling Machine



## STAR DRILLING MACHINE CO. AKRON, OHIO.

Manufacturers of Drilling & Fishing Tools, Also Oil Well Supplies.

The Baldwinsville Centrifugal Pump.

Mapecially adapted for contractors' use, Pumping Coffer Dams, Sewers, Sand-Pumping, etc. Irrigating Plants a Specialty. Address for catalogue, IRVIN VAN WIE, 48 & 50 West St., Syracuse, N.Y.





THE BUFFALO STEAM PUMP CO STEAM PUMPS FOR ALL DUTIES.



THE DEMING COMPANY

For Hand and Power.

WELL SUPPLIES AND TOOLS,

SALEM, OHIO.

#### IVIARSH STEAM PUMP.



Absolute actuation and regulation without use of tappets, levers or other mechanical connections. The most economical boiler feeder made. Returns exhaust steam to the boiler. Heats feed water 40 to 50 degrees, according to tests made by Prof. M. E. Cooley, of University of Michigan. Sizes—For boilers, 10 to 800 horse-power.

horse-power.

AGENTS.

N.O. Nelson Mig. Co., St. Louis; Staunard & Dillon, Chicago; Valk & Murdoch, Charleston, S. C.; Milton W. Barkhouse. Louisville, ky.; E. L. Cole, New Orleans, La.; Keating Implement & Machine Co., Dallas, Texas. Send for Catalogue to the

Battle Creek Machinery Co.

SOLE MANUFACTURER,

BATTLE CREEK, MICHICAN.









Centrifugal Pumps,

STEAM ENGINES, General Machinery, PHOS. BRONZE,

And Composition Pumps and Valves for

Pulp and Paper Mills, LAWRENCE, MASS.

# The Improved Smith & Vaile

SINGLE, DUPLEX AND COMPOUND

ater-Works Machinery.



The DAYTON, OHIO, and NEW YORK,

112 LIBERTY STREET.

SOUTHERN AGENTS:

MPKINS CO., - - CHARLOTTE, N. C., and ATLANTA, GA. MCARDLE & SINCLAIR, 50 Baronne Street, NEW ORLEANS, LA. D A. TOMPKINS CO.,



ON HORIZONTAL SHAFT.

DISPENSING ENTIRELY WITH GEARS.

Actual Test of the ViCTOR in Testing Flume, Holyoke, Mass Head in Ft. Horse Power. Per Ct. Useful Effe 18.06 30.17 3032 17.96 36.35 8330 18.21 49.00 8531 17.90 68.6a 854 18.06 17.96 18.21 17.90 11.05 17.29 16.49 15.51 52-54 133-19 148-93 179-29

VICTOR WATER WHEELS, UPRIGHT OR HORIZONTAL, FUNISHED ON SHORT NOTICE.

RECENT SO JTHERN PATRONS: Clifton Míg. Co., Piedmont Míg. Co., Camperdown Míg. Co., Whitney Míg. Co., Pelser Míg. Co., Euoree Míg. Co., Henrietta Mills, Pacolet Míg. Co. and others.

State your requirements and send for catalogue to the

STILWELL & BIERCE MFG. CO.

DAYTON, OHIO, U.S. A.

Mining Pumps.



PUMPS FOR BOILER-FEEDING, MINES. REFINERIES,

BREWERIES, TANNERIES. IRRIGATING. FIRE PURPOSES, RAILROADS and FILLING TANKS,

CRANK and FLY WHEEL And VACUUM

Diustrated Catalogue A.

SIMPLE,

COMPACT,

DURABLE. EFFICIENT.

ADAPTED TO ALL PURPOSES.

NO OUTSIDE VALVE GEAR.

The A. S. Cameron Steam Pump Works, PUMPS. Foot of East 23d Street, NEW YORK.

Pisten Pattern.

Plunger Pattern



# HYDRAULIC PRESSES and PUMPS FOR ALL PURPOSES.



Baling Presses, Oil Presses, Car Wheel Presses, Crank Pin Presses. Embossing Presses, Die Presses, and All Kinds of Presses

WATSON & STILLMAN,

Hand Pumps. Belt Pumps,
Steam Pumps,
Automatic Pumps,
Variable Delivery Pumps and over 50 kinds of Pumps, Accumulators, Valves, Gauges, Fittings, &c. 204-210 E. 43d St., New

Send for Catalogue

# HEALD & SISCO 17,000 in Use.

Canacity 40 to 50,000 Callons Per Minute.

ALL Sizes in Stock. Guaranteed su-perior to any other make. Our special Dredging Pumps will pass solids to in. in diameter. Our Sand Pumps can be seen running in St. Louis, Kansas City, Chat-tanooga, Memphis. Decatur, Louisville and many parts of the South.

MORRIS MACHINE WORKS,

Baldwinsville, N. Y.





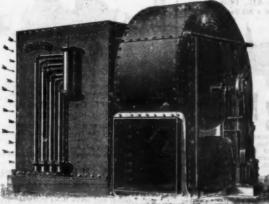
#### We have erected STAND PIPES

At the following Places: Kankakee, Ill., Cornwall, Ontario, Salisbury, N. C., Washington, Ind 20X124 20X120 20X100 20X100 20X84 30X52 11X45 25X40 16X116

SHARON BOILER WORKS, SHARON, PA.



# The Sturtevant Steam Hot Blast Apparatus



Public and Office Buildings, Stores and Manufacturing Establishments of all classes, and for drying Wood, Wool, Cotton, Tobacco, Glue, Grain, &c. Send for illustrated treatise on Ventilation and Heating.

84 Oliver Street, Boston, Mass.

BRANCHES-91 Liberty St., New York; 16 S. Canal St., Chicago; 135 N. Third St., Philadelphia, Pa. W. R. Burgess, agent, Greensbero, N. C.

#### TRADE NOTES.

BYRAM & Co., of Detroit, Mich., report that they have recently made export shipments of their Collian patent cupola furnace to Cardena, Cuba, San Luis Potosi, Mexico, and Yokohama, Japan.

MASLINS, 165 First street, Jersey City, N. J., advertises in the for, sale column of the MANUFACTURERS' RECORD several pieces of machinery, including blowers, pumps and engines, at unusually low prices. The machinery is described and prices quoted in the advertisement.

GEO. DRAFER & Sons, of Hopedale, Mass., are circulating a folder which describes the Doyle separator and the Green doffing device. These are new and improved pieces of machinery, which are highly recommended by Draper & Sons, who will send descriptive pamphlets upon application.

THE Totten & Hogg Iron & Steel Fourdry Co., of Pittsburg, Pa., have just received an order from the Pacific Iron & Nail Co. for a carl-oad of rolls. This is the second order of the kind received from this company within a month, showing that the rolls were satisfactory. They have also received an order from the Cannonsburg (Pa.) Iron & Steel Co. for two large gear wheels weighing about 25

ONE of the most extensive manufacturing establishments of Charlestown, W. Va, is the factory of A. D. Goetz, recently removed from Martinsburg, Pa. The buildings are substantial brick structures three stories high, 190x30 feet, with a wing 30x30 feet, on the ground floor of which is the steam plant. The first and second floors will be given up entirely to machinery, which is now being put in, while the third floor will be the storage room for material and the finished product. Harness of every description, from the finest carriage to the heaviest wagon and mine harness, as well as collars and fly-nets, will be made. The latest improved machinery, with skilled workmen and long experience in the business, it having been established 1856, combine to insure first-class goods in every respect, which will reflect credit not on the management, but also on Charlestown.

#### Literary Notes.

THE Dardanelles incident has called fresh attention to the danger to the peace of Europe given by Russo-Turkish relations. The historian, Edward A Freeman, who is a thoroughly informed student of the Eastern question, is preparing an article for the Forum on the "Peace of Europe," in which he will set forth the delicate relations of all the European governments to one another regarding this danger-point.

The well-known humorist, Edgar Wilson Nye, better known by the name "Bill Nye," which was bestowed upon him many years ago by brother journalists in California, will contribute to the Century during the coming year a series of articles descriptive of his experiences in different parts of America and in various capacities. He calls them his "Autobiographies," and the first one, "The Autobiography of a Justice of the Peace," will appear in the November Century. It is understood that Mr. Nye has not drawn so largely as is usual with him upon his powers of invention, but has endeavored to present a series of pictures of American life which will both amuse and instruct.

SECOND-HAND cotton machinery in good running order is offered for sale on page 46 in this issue by Davol Mills, Fall River, Mass. Full particulars given upon application.

# CUPOIA FUINACE. Adapted to all Poundries. The Most Economical. The Legist in Price.

1 Ad Lamell III /

BYRAM & CO. DETROIT, MICH.

JOHN T. FOLEY, Contract Pipe Layer.

HOME ADDRESS:

NASHVILLE, TENN.

Correspondence Solicited

# BLUE BRICKS Suitable for Acid Towers.

88 Great Charles Street,
BIRMINGHAM, ENG.

# Drilling Machines.



RADIAL, Universal Radial AND UPRIGHT

# DRILLS Single-column BORING AND TURNING

MILLS.
For Complete Catalogue and Low Prices,

## BICKFORD DRILL CO

173 E. Front Street, CINCINNATI, OHIO.

## Blacksmith's Drills



Fig. 730, No. 134. Has I in. Steel Spindle, bored for 36 in. Drill Shanks.

Extension Crank, 12 in. Swing. DRILLS 1/4 IN.

55 POUNDS, \$6.00. Nos. 2 and 3 are Double Back Geared, Self-Feed. \$10 and \$14.

TRY A SAMPLE.

The Silver Mfg. Co.

SALEM, OHIO.

# B. HARRINGTON, SON & CO

N. 15 St. & Penna. Ave., Phila., Pa.



# Iron Working Machinery

Extension and Gap Lathes, Planers with Quick Return, Drills, &c., Hand Power Elevators with Patent Brake, Double Chain Screw Hoists, Overhead Tramway with Switch, Turatable and Geared Truck.

Gear Outling a Specialty. Send for Estimates,
Burnesserves av
L. O. MAYNARD, 18 Cortland St., New York
C. E. KIMBALL, 93 Oliver Street, Boston, Mass

#### STARRETT'S FINE

# TOOLS



Skilled mechanics prefer them. Live Dealers sell them. Catalogue sent for the asking. - -

LS.STARRETT

ATHOL. MASS., U.S. A.

# Sheet Metal Ornaments For the Oornlee Trade.

Write for our beautiful 144
page Catalogue.

Fred. F. Bischoff & Co. 24 W. Lake St., CHICAGO. - ILL



Made of galvanized iron and copper. Strong upward draft. Exhausts foul air, doring gases, steam, etc. from the strong and dwellings; cures smoky champeys. Perfectly storm-proof. Galvanized iron and copper cornices and gutters, Sheet metal work for buildings. Send for illustrated

#### E. VAN NOORDEN & CO., 383 Harrison Ave., BOSTON, Mass.

After being on the market 6 years,
The Aomo Still Leads
In Durability, Efficiency and Fuel Economy



Sole Ruiders. ROCHESTER, N. V. Send for Illustrated Catalogue.

# The Metropolitan Automatic Injector.



The only Automatic Injector that is operated entirely without the use of any globe valves.

# TO START-Open Valve K. TO STOP-Close Valve K.

It can be used either as a lifter or non-lifter.
It is adopted by the largest Engine Builders, and is for sale by the LARGEST SUPPLY HOUSES IN THE U.S.
Ask your dealer or send to us for circular and

JENKINS BROS., 71 John St., New York.

SOMETHING NEW.—How to Cover Pulleys with Leather and make Relts Endless. Write for particulars, CRESCENT MFG. CO., Cleveland, O.

# Water Wheel.

This Wheel is strong and durable. Excelled all other wheels in the great trial tests. Is in use all over the nation. I also make a specialty of MEAVY GEARING MACHINERY

For Paper, Cotton and Griet Mills.

S. MORGAN SMITH, York, Pa.

# URNHAM'S STANDARD TURBINE.



It gives on either a Vertical or Horizontal Shaft more power for its price, yields a greater percentage of water used, either with full or part gate drawn, and is the simplest constructed and best finished Wheel of year offered for sale. Send for catalogue to BURNHAM

BURNHAN BROS. YORK, PA.

# UNIVERSAL MP PLAIN MILLING MACHINES EXCLUSIVE SPECIALTY THE CINCINNATI MILLING MACHICO

# THE BRIDESBURG MACHINE WORKS

TEXTILE MACHINE MAKERS.

Worsted Machinery, Wool Machinery, Cotton Machinery, Built to Order. HIGH GRADE | WILLIAM E. McGILL, WORK ONLY. | Bridesburg, Philada., Pa Repairs for Bridesburg Machinery furnished promptly.

# GAS of GASOLINE ENGINES



Dwarfs in Size, but Giants in Strength. Expense one cent-an hour per horse power and requires but little attention to run them. Every Engine Guaranteed. Full particulars free by mail

GAS & GASOLINE ENGINE CO. Cincinnati. Q.

# Babcock Buckboard







THREE CARRIAGES IN ONE.

Ask your dealer for our work or write to
L. H. BABGOCK CO., Watertown, N. T.
AF: 406-412 Brooms St., New York City.

# Southern Real Estate Interests.

#### Southern Real Estate Directory.

For the convenience of the many readers of the MANUFACTURERS' RECORD it has been deemed advisable to collect under this head a complete and reliable list of the leading Realty Agencies of the Southern States. The value of such a list for the purpose of Ready Reference will immediately become apparent to all who are interested in the growth of this section.

#### ALABAMA.

BESSEMER—Chas F. Hard & Co., Real Estate and General Commission, Room I, Charleston Block. GEORGIA.

AUGUSTA-Cinrence E. Cinrk, Real Estate, Stocks and Bonds. Loans Negotiated.
Augusta-Matherin & Armstrong, Real
Estate and Insurance. Loans negotiated.

KENTUCKY.

CATLETTSBURG—Standard Land Co.
Brokers in Mineral Lands. Correspondence

#### NORTH CAROLINA.

CHARLOTTE - Brem & Co. 100 City Lots, Farm Lands and Water Powers. OLD FORT—O. H. Blocker, Real Estate, Timber and Mineral Lands.

Timber and Mineral Lands.

OXFORD—Rice & Lassitor, Real Estate, Stocks and Insurance.

STATESVILLE—W. G. Lewis, Real Estate Agent. Correspondence Solicited.

NWILKESBORO—Am. House M.& T. Land Co., Ath. Cap. \$5,000,000 Shrs. \$10. Townbidg. WINSTON-SALEM—Johnson & Jones, Real Estate, Insurance, Stocks.

WINSTON-SALEM—Catlin & Hantner, Real Estate and Stocks.

WINSTON SALEM—P. C. Humphrey, Real Estate. Insurance, Stocks and Bonds.

SOUTH CAROLINA.

COLUMBIA—Geo. W. Parker & Co., Real
Estate and Insurance. Loans Negotiated.

COLUMBIA—Sale & Simmons, Real Estate,
Stocks and Bonds. Loans negotiated.

GREENVILLE-Browning & Co., Real Estate. No 60 Court Square.

SPARTANBURG. - Spartanburg Invest-ment Associat'n. Real Estate & Loans.

# VIRGINIA. BERRYVILLE—S. J. C. Moore & Co., Real Estate Agents.

Estate Agents.

BASIC CITY—A. B Carter, Real Estate and Insurance Agent. Correspondence solicited. BUENA VISTA—Guyer, McClure & Co.,
Real Estate, Stocks and Bonds. Write for
pamphlet "Buena Vista Securities."
BUENA VISTA—Binchkurn, Davis & McGitvray, Real Estate Stocks and Insurance.

BUENA VISTA-A. P Moore & Co., Real Estate and Stock Brokers.

Estate and Stock Brokers.

BUENA VISTA—Buchavan & Auderson,
Real Estate Agents and Stock Brokers.

BUENA VISTA—C. H. Jordan & Co., Real
Estate, Stocks and Insurance.

CHARLOTTESVILLE—J. C. McKennie &
CHARLOTTESVILLE—L. D. Aylett & Co.,
Real Estate, Stocks and Bonds. Correspondence solicited.

CHARLOTTESVILLE—L. D. CORRESCONTESTANDED C

CHARLOTTESVILLE-Jas. W. Dolin, Real Estate. Send for Dolin's Land Advertiser.

Estate. Send for Dolln's Land Advertiser.

ELKTON-Borum & Pringle, Real Estate,
Stock and Insurance Agents.

FARMVILLE—Hermdon, Hazell & Co.,
R. E. and Insurance. Members Va. R. E. Ex.
FORT DEFIANCE—McOue, Park ins & Co.
Real Estate. Correspondence solicited.

FRONT ROYAL—Borsey, Campbell & Co.
Real Estate and Stocks, No. 1 Court Green.

FRONT ROVAL—Borney, Campbell & Co.
Real Estate and Stocks, No. 1 Court Green.
LURAY—Wrights, Leyburn & Co., Real
Estate, Stock & Ins. Correspondence solicited
REWPORT NEWS—Robinson & Miller,
Real Estate Agents. Correspondence solicited.
NEWPORT NEWS—Braxton, Chandler &
Maryo, Civil Engineering, Real Estate and
Insurance, Washington Ave. & 30h St.
NEWPORT NEWS—C. B. Neims & Bro.,
Real Estate and Insurance Agents. Representing \$150,000,000

senting \$150,000,000.

NORFOLK—J. M. Marshall & Co., Real Estate Brokers, 113 Main Street.

NORFOLK—A. W. Cornick & Co., Real Estate Agents, 103 Main Street.

ROANOKE-H. Chipman & Co., Real Estate 109 Salem Avenue. Call and see us.

tate 109 Salem Avenue. Call and see us.

ROANOKE—Simmons, Carpenter &
Tunsley, Real Est. Brokers, 108 Jefferson St.

ROANOKE—Dupuy & Taliaferro, Real Estate & Insurance Agents, 11 Campbell St.

ROANOKE—Southwest Virginia Mineral, Timber, Farm, Coal and Iron Ore Lands. J. A.

Daiby, Sons & Co. Correspondence sol.

ROANOKE—C. O'Leary & Co., Real Estate Agents, 9 Campbell Street.

ROANOKE—Gray & Boswell, 'Real Estate Brokers, 110 Jefferson Street.

ROANOKE—Broy & Boswell, 'Real Estate Brokers, 110 Jefferson Street.

ROANOKE—Broy & Boswell, 'Real Estate Brokers, 110 Jefferson Street.

ROANOKE—Broy & Boswell, 'Real Estate Brokers, 110 Jefferson Street.

ROANOKE—Broy & Boswell, 'Real Estate Brokers, 110 Jefferson Street.

ROANOKE—Broy & Boswell, 'Real Estate Brokers, 110 Jefferson Street.

ROANOKE—Broy & Boswell, 'Real Estate Brokers, Correspondence solicited.

ROANOKE—Broy Brithugh Lee, President.

ROANOKE—Wilbur S. Pole & Co., Buy,

Association, Fitzhugh Lee, President. ROANOKE — Wilbur S. Pole & Co., Buy, Sell and Exchange Real Estate. SALEM—Allen & Tompkins, Dealers in Mineral and Timber Land.
WINCHESTER—Hancock Bros., Real Estate and Insurance Agents, Court House Ave. WINCHESTER—Hansbrough & Co., Real Estate and Stock Brokers.

#### WEST VIRGINIA.

CHARLESTOWN—Washington & Alex-ander, Real Estate Agents.

CHARLESTOWN—Davenport & Mailorie Members Real Estate Exchange. Negotia-tions conducted.

# Cotton Mill

Fitts, who was Superintendent, and one of the largest stockholders, I offer for sale

#### THE TUSCALOOSA COTTON MILLS.

My son and I owned a majority of the stock, and he had entire control of the internal management for seven years. My connection with it as President was with the view of his owning the property of some future day.

The 'TUSCALOOSA COTTON MILLS' is a

corporation organized under the laws of Alabama in 1879, with a paid-up capital of \$40,000, and its corpo ate existence can be retaine! by the purcorpo ate existence can be retaine by the purchaser. All the stock can be transferred, and, as it has all been paid in, there would be no legal liability beyond the assets of the company.

The property is situated within the corporate limits of the city of Tuscaloosa, Alabama, and is exempted from municipal taxes until 1980. We carried \$50,000 insurance at \$5 cents on the \$100. During the nine years the TUSCALOOSA COTTON MILLS were operated, the net profits were \$60.81 of which \$41000 were paid to the

were \$63,608 31, of which \$41,000 were paid to the stockholders as dividends, and the sum of \$42,608 31 expended in improvements. This was fully equal to making an annual average dividend of 17½ per cent.

We had no knowledge or experience in cotton manufacturing when we started this mill, and

manufacturing when we started this mill, and ran it under this disadvantage. Experienced manufacturers, it is confidently believed, would have doubled our profits for the first three

The machinery in the mill cost \$40,000. The

The machinery in the mill cost \$40,000. The building cost \$45,000.

The machinery is all in first class condition, and the appreciation in the value of the land more than counterbalances any loss by wear and tear.

BILL DINGS.

#### BUILDINGS .

BUILDINGS:

The main building is 36 feet wide by 190 feet long—116 feet of this length is three stories, and balance two stories high. The centre building is 32x50, three stories high. The chouse is 40x50, one story. Engine and boller-room 58x36, with drying-room above. All these are of brick, covered with tin. The office, blacksmith's shop and machine shop are one-story brick buildings covered with tin. The warehouse, dining-room for operatives and waste-house are one-story framed buildings.

We made Heavy Cotton Plaids, for which there is now a good demand from our former customers. Our goods were 27 inches wide and full weight, and made of the best materials. We sold only to the best class of jobbers, as is evidenced by the fact that our sales amounted to more than

only to the best class of jobbers, as is evidenced by the fact that our sales amounted to more than \$1,400,000, and our losses were less than \$1,200. Weavers and other operatives can be obtained in the city and vicinity at a reasonable price, the cost of weaving per cut of 55 yarns being 30 cents. A first-class dyer, Mr. Robert Wilson, resides here and owns stock in the TUSCA-LOOSA COTTON MILLS. He was foreman form. Dickey, of Philadelphia, for several years, from whom he has a good recommendation, and he has been with us since 1879, and given fine satisfaction. He would doubtless retain his stock if he should be retained as dyer.

#### TERMS OF SALE :

TERMS OF SALE:

I will sell this property for \$4,0,000—one-third cash, balance in one and two years with 8 per cent. interest, or half cash and balance in twelve months with 8 per cent. interest—notes to be secured by a mortgage on the property, which is to be insured and policies assigned.

As to the trustworthiness of my statements, I re'er to John J. Knox, Esq., President of the Bank of the Republic. New York.

Bank of the Republic, New York.

I will pay the traveling expenses of any respon-sible man who will come to Tuscaloosa to look into the matter and who means business.

## J. H. FITTS,

Tuscaloosa, Ala.

President.

#### SPECIAL ATTENTION

# INVESTMENTS

# SOUTH.

Parties desiring to interest Eastern investors in good Southern enterprises are invited to call at my office or correspond with me.

W. P. RICE,

Room 208 (Washington Building),

No. 1 Breadway, New York City.

#### To Those Looking For

# Manufacturing

The most desirable locations for the

manufacture of wagons, stoves, horse and mule shoes, boiler plate, sheet iron, agricultural implements, furniture, or for foundries, machine shops, rolling mills, muck bar mills, nail werks, glass works, cetton er weelen mills, pipe foundnes, wrought iron pipe works, tanneries, or other manufacturing establishments, are to be found in Virginia, along the line of the Norfolk & Western Railread, from Norfelk, Va., er Hagerstown, Md., to Bristol, Tenn., and upon its Clinch Valley, Cripple Creek and Ohio extensions. Hardwood in every variety; pig iron frem the furnaces at Lynchburg (2), Reaneke (3), Pulaski (1 in operation and I under construction), Ivanhee (1), Radford (1 new under constructien), Salem (1), Graham (1), Max Meadews and Bristel (1 at each point new under construction), Shenandeah (1), Buena Vista (1); bar iron from the rolling mills at Richmond, Shenandeah (new under construc-tion), Lynchburg, Reanoke and Richlands (now under construction): coke and semi-bituminous coal from the Pocahontas coal and coke field; superior gas coals from mines on the Clinch Valley Extension; glass sand near Tazewell and Buena Vista; Cetton from the markets of the Southern States, and woel from all the Western and Southwestern States and Territories, at advantageous freight rates. Favorable freight rates made upon raw materials to all factories established upon its line, as well as to points in the United States and Territories, upon the manufactured articles. These seeking new fields for manufac-

turing establishments should not fail to investigate the wonderful development of iren, ceal and coke industries that has been made with the past five years along the line of the Norfolk & Western Railroad, and the advantages offered by the State of Virginia in the supply of raw materials, by the Norfolk & Western Railroad Company in the matter of freight facilities and rates upon raw materials, and reaching home, far distant and foreign markets, and by the cities and towns along its line in the way of advantageous sites at moderate cost. Many of the cities and towns exempt manufacturing establishments from taxation for a series of years.

For further information as to freight rates and sources of supply of raw materials,

maps, pamphlets, etc., apply to
A. POPE, General Freight Agent,
or to CHAS. G. BDDY, Vice-President. Roanoke, Va.

#### NOTICE TO FERTILIZER MANUFACTURERS.

We are now prepared to take orders for PEB-BLE PHOSPHATE running from 6e to 70 per cent. Bone Phosphate of Lime, in lots to suit purchasers. Correspondence solicited

TAMPA PHOSPHATE CO.

TAMPA, FLA.

#### MANUFACTURERS!

The Jellico Tannery has så acres of land, south of and adjoining the Knoxville & Ohio Raliroad, which they will deed any part of, or all, to say manufacturing plant, for manufacturing pur-poses, for one dollar per acre.

B. A. CONNELLY,

JELLICO, TENN.

-WRITE FOR-PROSPECTUS AND PRESS OPINIONS

#### THE SECRETS OF CANNING.

A PRACTICAL BOOK FOR CANNERS. J. MURPHY & CO., Baltimere, Md.

# Fruit Vegetable Canners

The cheapest, most efficacious and economical system for putting up high standard goods is the

# MUDGE

# PATENTED PROCESS

Large Plants Furnished, also Family Processors on the Same Principle.

STATE RIGHTS FOR SALE FOR EITHER OR BOTH PATENTS.

CHESAPSAKE FRUIT PACKING Co., of Baltimore.

ADDRESS

## Mudge Process Fruit Packing Co.

210 E. Lexington St., Baltimore.

Charles F. Mudge, General Manager.

# Manufacturers!

If you are seeking desirable locations, communicate with the under-signed. Special inducements are offered new enterprises in the growing towns along the Baltimore & Ohio Railroad.

# Business Men!

Opportunities for the establishment of Profitable Lines of Business are made known on application.

ADDRESS

#### M. V. RICHARDS,

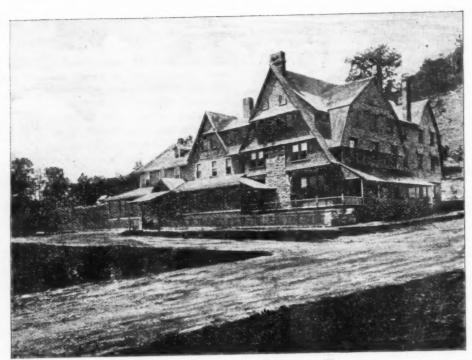
Land and Immigration Agent Baltimore & Ohio Railroad,

BALTIMORE, MD.

S

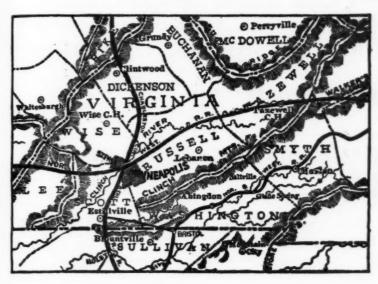
es. but

EN



ESEEOLA INN, LINVILLE. N. C.

# MINNEAPOLIS, VA.



Minneapolis is Under the Management of GEN. THOMAS

L. ROSSER, Builder of the Northern Pacific and

Canadian Pacific Bailways.

Resources.

Coal and Iron, both in Inexhaustible
Quantity and Unexcelled Quality,
In Juxtaposition.
In the Center of a District
Composed of Five Counties,
Containing More Timber
Than Minnesota and Wisconsin
Combined.

# Advantages and Attractions.

A Healthy and Beautiful Situation in a Valley 2,000 feet above Sea Level, Surrounded by Mountains.

Encircled by a Large Bold Stream, ample for Water, Drainage and Power.

The Crossing Point of the Norfolk & Western and the Three C's, the Future Great East and West and North and South Trunk Lines.

# AMAN POPP AMAI TO THE P

# INDUSTRIES FROM ALL SECTIONS

Are now Seeking a Location at Minneapolis on Account of the Minimum Cost and Maximum Quantity and Quality of Raw Materials, the Fine Transportation Facilities and the Healthfulness and Beauty of the Site.

JOHN M. WHITE, Treasurer, CHARLOTTESVILLE VA.

# ERNAKE, Recklinde VIRGINIA

FOR 1891 Offers to the Investor a Most Desirable Opportunity for Profit.

## Residence Purposes for Business and

AT PRICES TO SUIT TITE TIMES.

CAVERNAKE adjoins Buena Vista on the Southwest; fronts on Shenandoah Valley Railroad and on James River Division of the Chesapeake & Ohio Railway. High Grade Manganese and Iron Ores to steel and iron trades. Safety and profit to investors. Healthy and picturesque homes at moderate prices to lot buyers, notwithstanding the late depression due to monetary stringency and unusually severe weather.

The industries secured for Savernake have all been retained, and will proceed to build as soon as the weather permits.

THE SAVERNAKE PRESSED BRICK COMPANY.

This Company, formed to manufacture from the superior clay deposits found at Savernake, the highest grade pressed, front and ornamental brick, is now erecting the pressed brick works,

CAPACITY 40,000 BRICK DAILY.

The capital of the Company is \$30,000, full paid. The grade of brick to be made here sells now for \$30 per 1000 at Buena Vista, and allows a very fair margin of profit, insuring large dividends to share-

A limited amount of stock remains unsold.

Prospectus may be had and all information obtained by application at office of Savernake Pressed Brick Co., Savernake, Va

It is expected that the works will be completed and in operation in thirty days.

#### THE SAVERNAKE INVESTMENT CO.

The Savernake Investment Company has been organized under a very liberal charter, granted by the Circuit Court of Rockbridge county, Va. It is empowered to do a general

CONSTRUCTION AND IMPROVEMENT BUSINESS,

to buy, sell, rent or lease real estate, to remove encumbrances from the same, to accumulate funds for investment, loans, manufacturing, banking commercial or other purposes, as may seem to the Directors most profitable.

The Company has purchased seventy-five residence lots and twentyfive business lots in the town of Savernake for \$35,000 of paid-up stock

in the Investment Company. The present market value of the above lots is \$62,500, thus leaving \$27,500 over and above the amount paid for the lots as a profit, belonging to the stockholders.

It is proposed to make the minimum stock of the Company \$70,000, to be divided into shares of \$50 each; 700 shares will be issued to the the Company in full payment for the 100 lots purchased, and the remaining 700 shares (\$35,000) will be placed on the market on the following

Ten per cent. at the time of subscription, \$ 5 00 Ten per cent. on call of the Directors, Ten per cent. every thirty days thereafter, 40 00

Par value. \$50 00

The \$35,000 realized from the sale of the stock will be used in building upon and improving the lots purchased, or for other purposes named in the charter, as may be deemed most profitable by the Board of Directors.

ATTENTION is called to the fact that no Building or Investment Company yet organized at any of the new towns of Virginia has failed to realize large profits.

THE VALLEY INVESTMENT COMPANY, of Buena Vista, organized July, 1890, capital \$10,000, on October 1st, with a paid-up capital of \$4,000, showed net earnings \$6,000.

THE SOUTHWEST VIRGINIA INVESTMENT COMPANY, composed of Philadelphia capitalists, organized about two months since, with a capital of \$100,000, now shows profit of \$33,000.

THE HOME INVESTMENT COMPANY, of Buena Vista, commenced business about September 1st, 1890, with \$3,000 paid in, and on the 15th of October last, reported as actual undivided profits \$1,710, and an estimated profit of \$23,000, representing the difference between the cost of their property and the market value.

THE LEXINGTON INVESTMENT COMPANY commenced operations at Buena Vista about twelve months since, with a proposed capital of \$30,000. Paid \$10,750 for 50 lots; after collecting 50 per cent., declared the stock paid up, and could realize \$420 per share if the property were

When it is considered as a basis for the subscription of \$35,000 to the capital stock of the Savernake Investment Company that its 100 lots are paid for in full and represent a positive value of \$27,500 more than the amount paid for them, it must readily suggest to any one the very desirable character of this stock. Under the charter the following are the officers of the company for the first year:

OFFICERS:

PRESIDENT, J. HOWARD WAYT, Staunton, Va. SECRETARY AND TREASURER, J. E. B. STUART, Buena Vista, Va.

VICE-PRESIDENT, THOMAS DUNLAP, Savernake, Va. MANAGER, J. M. HENKLE, Buena Vista, .Va.

#### DIRECTORS:

J. HOWARD WAYT, Staunton, Va. THOMAS DUNLAP, Savernake, Va. W. H. H. LYNN, Staunton, Va. J. M. HENKLE, Buena Vista, Va. SAMUEL SADDINGTON, London, England. STEVENS M. TAYLOR, Lexington, Va. J. E. B. STUART, Buena Vista, Va,

Subscriptions may be sent to and all information had of J. E. B. STUART, Secretary and Treasurer, Buena Vista, Va.

# Capitalists Desiring Prudent Investments

In Southern Manufacturing Enterprises, conducted by experienced specialists in works with an established trade for years and proposing to remove to

# SAVERNAKE··

with the coming spring, can address the management as below.

## THE LINES OF MANUFACTURES PROPOSED, ARE:

#### Steel Ingots.

Under one of the new direct processes, now commercially established, affording large profits and worthy of closest investigation.

#### Agricultural Steel Forgings.

Including Spring Steels and Mining Tools, Picks, Mattocks, &c., &c.

#### Locks, Knobs and Builders' Hardware.

High-grade goods in real and imitation Bronze, Silver and Nickle-plated goods, &c., with established reputation and extensive trade. A most desirable opportunity.

#### Tin and Tin-Plate Co.

With advantages believed to be unsurpassed by those of any other company formed for this purpose, viz:

Ownership of valuable Tin Ore lands of demonstrated value in the Blue Ridge Tin field of Virginia.

Promotion of Steel and Steel-Plate for Tinning on the spot from ores controlled by the Company, at minimum of cost.

Management of various branches by specialists of experience in Tin mining, dressing and smelting; in steel metallurgy; in Tin-Plate making and marketing.

Management of finance by capitalists of experience and position in the financial world.

Control by ownership of the best, and most generally used abroad, Tinning process—patented—and of various other late and improved devices for the most economical production of Tin Plate.

Demonstrated and verified cost and profit sheets will be furnished principals meaning business.

#### Steam Engines, Boilers,

Complete Power Plants, Iron Bridges and General Machinery Works, established 1840, trade general throughout United States. Management of first respectability. Investment most desirable.

#### Hydraulic Cement Works.

Deposit large, running through 1,200 acres, quality stated to be same as James River cement. Location, within half a mile of two parallel railroads. Demand strong. A most profitable industry.

#### Fire-Brick Works.

Clay in large supply, near railroad. Has been tested and pronounced firstclass. Every facility for manufacture at large profits.

All or any of the above offer safe and desirable investment for capital on business principles, at bed-rock prices, and with no "promoter's funds."

The owners of these works, with the exception of two—the Tin-Plate Weeks and the Hydraulic Cement Works, which are new—have concluded to

remove them to Savernake after examination of the locality, the raw material the advantages over present site.

All plants are at expert appraised value; trade shown and capital invested demonstrated.

Capitalization is, in every case, upon these data, and necessary additions for removal and extension, and is entirely "without water."

#### Northern Investors

In Town Mortgages have here an opportunity to obtain the superior advantages and profits of Southern Manufacturing Enterprises, combined with experience, skill and established trade.

The establishment of Savernake as an

#### Industrial Town

requires capital upon a large scale, and from various sources. Experience teaches that investors are guided by and select from, those opportunities offered in and by the journals of much established repute and widest circulation in their specialties.

#### The Manufacturers' Record

Has been selected because of its thorough knowledge of Southern investments, its unparalleled success in attracting attention to honest opportunities for Southern enterprise, and because in a largely extended advertising more direct results and more business has been received from it than all other advertising mediums used.

The above enterprises are all ready to proceed at once to building at Savernake. All offer legitimate profit, and are offered only subject to strictest investigation, and on this basis only.

Such a group of industries will demand homes for a large population and for those to supply their necessities and luxuries.

#### Savernake and Extensions.

Will offer for the season of 1891 some 2,000 desirable BUSINESS AND RESIDENCE LOTS. Prices of these will be in no case speculative. A marked reduction and favorable terms to those who will contract to build their own homes on purchase of lot. A liberal and equitable concession for cash purchases, and to building investment and manufacturing companies.

#### Foreign Investors

May address for information and particulars The LOCH LAIRD ESTATE & MINERAL CO., LIMITED, OFFICE, 30 LIME STREET, LONDON. E. C.

#### American Investors

Will apply to THOMAS DUNLAP, MANAGING DIRECTOR, SAVERNAKE, VA.
POSTOFFICE ADDRESS, TRIFORD, ROCKBRIDGE Co., VA.

Railroad Station for both Shenandoah Valley Railroad and Chesapeake & Ohio Railroad, Loch Laird Station, Va. All C. & O. Railroad Trains stop at Savernaha.

#### A Band Resaw.

The band resaw shown in the accompanying illustration is the result of the efforts of Frank & Co., Buffalo, N. Y., to perfect a machine which would do the work of older machines without the same great waste of lumber.

The machine is built by the most skilled workmen and of the best material. The wheels are made from wood glued up in their sections, and are 42 inches diameter, 3¼ inches face. The upper wheel is adjusted by a very simple and handy device. The journals for upper and lower wheel shafts are 12 inches long, and both have an outside bearing. The rollers are 4½ inches diameter, and are geared in same manner as circular resaws, giving a very strong and positive feed. The feed is instantly started and stopped by a clutch pulley. The rollers can be tipped for

feet long, one for hard and one for soft tubes about 18 inches long, which are wood. The floor space required is 8 feet by 8 feet. The tight and loose pulleys are 20 inches diameter, 61/2 inches face, and should run 450 per minute.

#### Shipman Automatic Steam Engine.

The Shipman automatic steam engine illustrated herewith is manufactured by the Shipman Engine Co., 200 Summe street, Boston, Mass. In his description of this engine before the British Assemby, at Bath, England, W. R. Pidgeon says:

"This motor is an automatic petroleumburning steam engine, and has been designed by Mr. Shipman, of America, for use either on launches or in houses where a moderate amount of power is required. One of its essential points is that it is automatic, so that when once steam has been

screwed into a flat, oblong chamber at one end and closed at the other, and is fired externally.

"Two small aspirators or atomizers, taking steam from the boiler, suck up the petroleum, which is used as fuel, from a chamber below, and drive it into the furnaces in the form of a fine spray. A couple of torches ignite this spray as it passes

or downwards as the steam exerts more pressure than the spring, or vice versa. Its movement is conveyed to the valve by means of a rod, and it thus regulates the amount of steam passing at any moment to the atomizers. In this way the fire is made to vary inversely as the pressure in the boiler, and thus keeps the latter constant,

"The petroleum is stored in a tank at



THE SHIPMAN AUTOMATIC STEAM ENGINE (BOSTON MODEL).

sawing bevel weather-boarding, &c. The generated in the boiler, practically no machine is furnished with brass gauges to show exactly at what angle your machine is cutting. The capacity of machine is 6 inches thick and 26 inches wide, and will feed with the two feeds sent with machine, 27 and 54 feet per minute. The machine weighs 4,500 pounds. The entire heighth of machine is 91/2 feet. The saws sent with machine are two 21/2-inch saws, 25

further attention is required beyond that of opening and shutting the steam valve whenever the engine is started or stopped, the fire, speed and water-feed being so arranged as to attend to themselves.

"The engine is simple or compound, as may be best suited to the work it has to perform, and is built upon the same frame

inwards, and the flames produced by its combustion rush around and among the boiler tubes. The amount of steam and petroleum that is used by the atomizers is regulated by a diaphragm connected to a valve in the steam pipe that supplies them.

"This diaphragm is exposed to the steam pressure on the one eide, and is held down by a spring, loaded to a certain as the boiler. This latter is composed of pressure, on the other, and moves upward

any convenient distance from the motor. and is led to it through a pipe having a regulating valve in it. The water in the boiler is kept at a constant level by means of a float connected to a tap in the suction pipe of the pump. This float is placed in a chamber which is joined to the top and bottom of the boiler, and rises or falls with the level of the water. The movement is conveyed through a stuffing box and by means of levers to the tap in the suction pipe which it opens or closes as the water level changes.

The speed of the engine is kept regular by means of a governor, which works directly on to the eccentric, and the lubricating of all journals, cylinders and slides is performed by the ordinary sight-feed lubricators and cups, except that of the crank-pin, which is effected by means of a centrifugal oiler attached to the crankdisk. It may be seen from the foregoing that when once steam is up, the fires, the water supply, the oiling and the speed of the engine require no furthur attention. But when first starting a sufficient pressure is required in the boiler to work the atomis required in the boiler to work the atom-izers, and for this a hand air-pump is provided. A few strokes of this pump will suffice to start the fires, and it is only nec-essary to pump slowly for five minutes to raise sufficient pressure of steam to keep them going, 15 minutes in all being re-quired to get steam up to 100 pounds per square inch.

"As regards the other requirements of

"As regards the other requirements of small motors, the Shipman engine is compact, not heavy, and simple to understand, so that it neither requires much space, strong foundations, nor a skilled attendant."

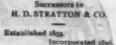
can fari Wo

ant."

The Shipman Engine Co. publishes an illustrated pamphlet giving full description, prices and other information about its automatic steam engines, from one to eight horse-power, steam launches, propellers, shafts, pumps, pulleys. dynamos, steam whistles, etc. This catalogue will be mailed free from 200 Summer street, Rosston Mass. Boston, Mass,

# Columbus Iron Works Improved ABSORPTION ICE MACHINE.

BUILT BY THE COLUMBUS IRON WORKS CO., Columbus, Ca.



W. R. BROWN, President. W. COOK, Superintender

Machines from 5 to 33 tons capacity per as hours, or larger if desired,

94 Machines built, and all in successfu. operation.

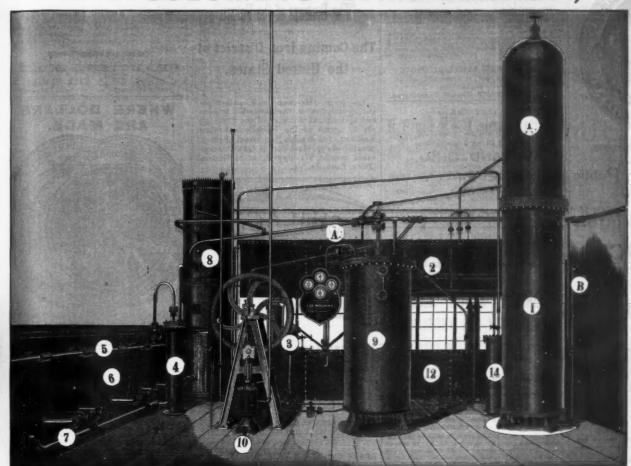
More Ice Making Machines Sold in the South than any other establishment.

No expensive building required.

No pressure on machine when stopped.

Send for price-list and illustrated circular with location of machines.

This establishment was the first to turn out a perfect and complete Ice Machine, and has been in the business 21 years, constantly manufacturing and improving, and are prepared to furnish the most reliable and economical machine in the



FARRELL & REMPE, 799, 801, 803 & 805 OCDEN AVENUE, Cor. Campbell Avenue,

Wrought Iron Pipe Coils

Ice & Refrigerating Machines.

Coils of All Descriptions for

HEATERS, SOAP MAKERS, CHEMICAL WORKS, BLAST FURNACES, &c.

PIPE BENDING OF ALL KINDS A SPECIALTY

Write for prices and estimates. (Mention this paper.)

E. A. SAUNDERS.

n-

at

the ans

d in and alls

the

5 85

egu-

briides

feed

the

of a

oing . the d of

tion. sure

nec-

keep re-unds

ts of

com-tand, pace, tend-

es an crip-

WM. SIMPKIN, A. S. H. R., American Soc. Mech. Eng., General Manager.

THE RICHMOND ICE-MACHINE CO.

Jost Improved Ice-Making Refrigerating Machinery

ON THE COMPRESSION PLAN.

A WORD IN YOUR EAR.—Our Machines are giving satisfaction and making the guaranteed amount of Pure, Solid, Transparent Ice.

WE HAVE UNDOUBTEDLY THE BEST AND SIMPLEST MACHINE ON THE MARKET.

We guarantee the proper working of our machinery. All working parts built to gauge, so they can be readily duplicated, and nothing but the very best material used. Specifications and estimates farnished. Correspondence Solicited.

Works, MANGHESTER, VA.

Office, 1105 Main Street, RICHMOND, VA.

Send for our Pamphlet "How to MAKE AN ICE FACTORY PAY."

Bullock Bellows Co.,

Largest Manufac-turers in the World

JAMES D. CARDELL & CO. PIPE BENDING WORKS, Philadelphia, Pa.

Colis of WROUGHT IRON PIPE far ICE and REFRIGERATING MACHINES, CHEMICAL WORKS, SOAP WORKS. BLAST FURNACES.

Colls of Any Desired Length af WELDED PIPE. PIPE BENDING and WELDING A SPECIALTY

## HOWARD HYDRAULIC CEMENT

HOWARD HYDRAULIC CEMENT CO., Chattanooga, Tone.



CASH CAPITAL. \$1,000,000.

Employers' and Public LIABILITY.

Boiler Inspection

## INSURANCE.



LABOEST TYPE AND ELECTROTYPE POUNDRY AND PRINT-RES SCPPLY HOUSE SOUTH GF PHILADELPHIA. Our Type is now used by The Baltimers Bun, Washington Post, Child, Herald, Public Opinion, and nearly all the leading Newspaper and Book Olice in this vicinity. Send for estimates.

JOHN G. MENGEL & CO.

No. 111 E. GERMAN ST., BALTIMORE, Ma.

#### FAST TRAIN LINE.

#### Cleveland & Canton R. R. Co.

Newly Rebuilt to Mandard timuge.

New and Elegant Pullman Palace Cars. Heated by Steam from the Locomotive. No Stoves. No Danger from Fire Three Fast Trains Each Way Daily between Cleveland and Canton. Two Fast Trains Each Way Daily between Cleveland and Zanesville. No change of Cars between Cleveland and Zanesville. J. W. WARDWELL, Genland and Zanesville. J. W. WARDWELL, Genland and Zanesville. J. W. WARDWELL, Genland and Zanesville.

#### WHEN YOU GO SOUTH.

Be sure you are ticketed via Lexington and the Newport News & Mississippi Valley Railway Eastern Division, penetrating the famous blue-grass region of Kentucky—the garden spot of the world. Tickets on sale at all railroad ticket offices.

CHAS. L. BROWN,

Genl. Passenger Agent, Lexington, Ky.

A TLANTIC TRANSPORT LINE.

BETWEEN BALTIMORE AND LONDON.
Calling at Swansea and Philadelphia on the
outward passage.
S.S. Minnesota, 5,000 tns.
S.S. Maryland, 4,200 tns.
S.S. Montana, 4,200 tns.
S.S. Montana, 4,200 tns.
S.S. Missoni, 4,200 tns.
Light Transported to the control of the contro

#### POPULAR AND DIRECT ROUTE.

# THE BAY LINE

For Old Point Comfort, Norfolk and the South.

Reamers leave daily (except Sunday) Union Dock 6,30 P. M., Canton Wharf 7 P. M.; arrives Old Point Comfort 7 A. M., at Norfolk at 8 A. M., Fortsmouth 8,15 A. M. At OLD POINT COMFORT connect with CHESAPEAKE & OHIO RAILROAD for Richmond, Charlottesville, Greenbrier, White Sulphur Springs, Louisville, Cincinnati and all points West. At NORFOLK with NORFOLK & WESTERN RAILROAD for Petersburg, Richmond, Lynchburg, Roanoke, Bristol, Knoxville, Chattanooga, Memphis and the Southwest; also with the NORFOLK SOUTHERN RAILROAD for Elizabeth City, Edenton and Eastern North Carolina. At PORTSMOUTH, VA., with SEABOARD & ROANOKE RAILROAD for Weldon, Raleigh, Southern Pines, Pine Bluff Health Resort, Peachland, Mount Holly, Charlotte, Fayetteville, Newberne, Wilmington, Charleston, Columbia, Augusta, Savannah, Jacksonville and all Parnetpat Southern Pines, Unsurpassed Cestime, Undisharded Night's Rest. Sure Connection.

For tickets and information apply at Company's Office, 1.9 E. Baltimore Street.

E. Brown, G. T. A. Kennon Jones, Agt.

# THE BAY LINE

Fortress Monroe, Morfolk # the South.

Bay Line comprises the New and Elegant Steam 'VIRGINIA," "CAROLINA" and "FLORIDA

All the Comforts and Luxuries of a First-Class Robel are sifueded the traveler. Spacious and Elegant taloons and Sistercome, turnished with an especial view to comfort. Unsurpassed Cuisine, which is made a specialty with this Lines. Elegant service and courteous attention. Seasons leave Baldimore only (recept Sundays) at 9 r. H. PUELA ELEGANT is located the BFLENDID HYGELA SUPERIA, a baldgabrait Recort at all seasons of Dompany's of Tickets and information apply of Dompany's of Tickets and information apply of the State of the State

157 W. BALTIMORE STREET, BALTIMORE.

D. J. HILL, Superintendent. E. BROWN, General Ticket Agent.

TAKE THE

Cleveland, Lorain & Whe ling R. R.

CLEVELAND, OHIO,

WHEELING, W.VA. BEAUTIFUL SCENERY and QUICK TIME.
NO CHANGE OF CARS.

oscar Townsend, Gen Manager.

Short and Only Direct Route Between

#### CAMBRIDGE, AKRON, CANTON, MARRIETTA and WHEELING.

an Buffet Sleeping Cars between Cam-Washington and Baltimore without Ask for tickets via V-lley and B. & O.

J. T. JOHNSON.

General Supt. J. B. CAVEN, Gen. Pass. Agent.

#### AN EVER-READY TICKET.

Thousand Mile Books at 2 cents per mile. Good to a Thousand Poluts.

Thousand mile books are now sold by the Cincinnati, Hamilton & Dayton R. R., at the rate of \$20, and will be accepted on all divisions of the C. H. & D., and fifteen other roads, reaching a thousand or more points. The purchase of one of these mileage books assures the passenger not only cheap riding but an ever ready ticket. They will be good for passage between Cincinnati, Indianapolis, Chicago, St. Louis, Toledo, Buffalo. Salamanca. Ft. Wayne, Peoria, Ann Arbor, Cadii-lac (Mich.) and innumerable other points. The following roads will accept them between all stations: Buffalo & Southwestern, Chicago & Brie and N. Y. P. & O Divisions of the Brie Railway, Dayton & Union; Dayton. Ft. Wayne, & Chicago: Flint & Pere Marquette; Ft. Wayne, Cincinnati & Louisville, Grand Trunk, between Detroit & Buffalo: Indianapolis, Decatur & Western; Lake Erie & Western; Louisville, New Albany & Chicago: Terre Haute & Peoria; Toledo, Ann Arbor and Northern Michigan; Wheeling & Lake Erie and Vandalia Line, for continuous passage between Cincinnati and St. Louis. Thousand Mile Books at 2 cents per mile. Good to a Thousand Points.



BETWEEN **CHICAGO CINCINNATI** CLEVELAND.

BUFFALO, NEW YORK AND BOSTON.

VESTIBULED TRAINS.

PULLMAN SLEEPING

AND DINING CARS.

ALL THROUGH TRAINS LIGHTED BY GAS
AND HEATED BY STEAM.

THE BEST ROUTE TO CHAUTAUQUA LAKE.

For information call on the nearest railroad ticket agent or address.

W. C. RINEARSON, General Passenger Agent, A. M. TUCKER, General Manager, Cleveland.

D. I. ROBERTS, Assistant General Passenger Agent, Chicago.

# VIRGINIA

## 'The Bonauza of the Future."

#### The Coming Iron District of the United States.

For maps, reference book, pamphlets, etc., descriptive of the wonderful mineral and agricultural recourses of the State apply to agents of the Norfolk & Western Railroad, 290 Washington street, Boston; 303 Broadway, New York; 1423 Pennsylvania avenue, Washington, or to General Office, Roanoke, Va.



# ILLINOIS CENTRAL

RAILROAD.

LEAVE CHICAGO 8.20 P. M. DAILY.
ARRIVE NEW ORLEANS 8.00 P. M.
Only 28 hours and 40 minutes en route

LEAVE CHICAGO 3.20 P. M. DAILY. ARRIVE MEMPHIS 8 40 A. M.
Only 17 hours and 20 minutes en route.

Connection is made at NEW ORLEANS with the LOUISVILLE & NASHVILLE train leaving there at 8.30 P. M., reaching Bay St. Louis, Pass Christian, Biloxi, Ocean Springs and other Gulf Coata Resorts by bedtime, and JACKSONVILLE, FLA., next evening. Through Sleeper, New Orleans to Jacksonville.

Connection is made at MEMPHIS with the LOUISVILLE, NEW ORLEANS & TEXAS train leaving there at 9.30 A. M., arriving at VICKSBURG 7.45 same evening.

J. T. HARAHAN M. C. MARKHAM,
Asst. Traffic Manager.
Gen. Pass. Agt.

all the articles entific manner delicate style

and scie artistic, London. the

I finding to your great interect in a descriptive, popular a rily all, illustrated in that a sine."—Electrical Engineer, L.

Scribner's or Harper's gineering subjects, ewriters, and all, of to in that class of n

r engineer able write

gine opening a technical or e known and abl

that

its subjects in Social Economis

merit of treating

superlative n and be intere

has the

T. J. HUDSON, Traffic Manage

# WHEELING & LAKE ERIE

THE NEW THROUGH LINE

HE NEW I HROUGH LINE
Between Toledo and Steubenville, Pittsburgh,
Marietta. Through Coaches between Toledo,
Steubenville and Marietta. Through Sleepers between Pittsburgh and Chicago, and Day Coaches
between Toledo and Pittsburgh, via Akron, Cuyahoga Falls, Kent, Ravenna, Leavittsburg, Warren. Niles, Girard, Yonagatown, New Castle and
Allegheny.
THE SELY LIME RESULTED THANDOR

"BEAUTIFUL ZOAR."

A. G. BLAÍR, Traffic Manager.

JAS. M. HALL, Gen. Pass. Agent.

#### WHERE DOLLARS ARE MADE.



The line of the QUEEN & CRESCENT ROUTE through Kentucky, Tennessee, Alabama, Mississippi, and Louisiana

#### OFFERS CREATER OPPORTUNITIES TO SETTLERS,

MANUFACTURERS AND GENERAL

BUSINESS ENTERPRISES

other part of the U.S., vast b COAL, IRON, TIMBER AND FARM LANDS,

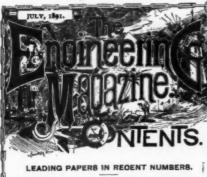
Also THOUSANDS OF ACRES OF LONG LEAF YELLOW PINE for sale cheap.

LEAF YELLOW FINE for sale cheap.
This road runs through the thriving towns of Lexington, Danville, and Somerset, Ky.; Rockwood, Harriman, and Chatanooga, Tenn.; Fl. Payne, Attalia, Birmingham, and Tuscaloosa, Ala.; Meridian, Hattiesburg, J. ckson and Vicksburg, Miss.; New Orleans, Delhi, Monroe, and Shreveport, La. Some of the new towns will donate money and land to locate Manufacturing enterprises.

The R. R. Co. will make low rates for Passengers and Freight, and afford investors every opportunity to examine the different localities. If necessary, will send a representative with the party.

Full particulars, and any required information, will be sent by mail on application to D. G. EDWARDS G. P. & T. Agt.

Q. & C. Route, CINCINNATI, O.



THE MECHANICAL DISPLAY AT THE WORLD'S FAIR, Edward Atkinson. GOLD MINING IN PERU BY THE INCAS. Dicots, E. M. GOLD MINING IN PERU BY THE INVAS.

PURE WATER FOR OUR CITIES.

Potor T. Austen, Ph. D., F. C. S.

IRON AND STEEL INDUSTRIES OF AMERICA.

SPLENDID RECORD OF THE ELECTRIC KAILWAY.

AMERICAN RAILROADS AND THEIR M. A. SPANSENT.

TALL OPPICE BUILDINGS OF NEW YORK.

IMPORTANCE OF GOOD WAGON ROADS.

Prof. Lewis M. Haupt. A. M., C. E.

HEATING AND VENTILATING HOMES.

WAR SHIPS OF THE U. S. NAY I. Leiccuster Allen, M. E.

HOTRES SEE, M. A.

EDITORIAL DEPARTMENTS

Reviewing Current Events in the fields of Civil Engineering, Architecture, Electricity, Mining and Metallurgy, Mechanics, Popular Miscellany.

25 CENTS A NUMBER; \$3.00 A YEAR. News Stands, or by Mail. Sample\_Copy 1

Zije Engreing Wagazine @ Wata Bake.

e wonderful read until the to all who enjoy the rations tempt one to ill undergo."-Elect the tastes amerous illustrates amagazines this, pur than the nu the sufficiently varied to ser and inventor, while been perused, a test wh edited Herald. Herald. nd splendid contents are so of the enginee and "We have new

PUBLICATIONS OF

#### H.V.& H.W. POOR,

No. 70 WALL STREET, NEW YORK.

Poor's Manual of the Railroads of the United States.

This work contains Detailed Statements of the Operation and Condition of every Railroad Corpany in the Country, with 20 specially engraved Sectional Maps of the United States and Canad and 50 Special Maps of leading Railroad Systems, corrected to date of issue. In one volume. 1,5 pages, cloth, royal octavo. Price \$6 per copy. Edition for 1891, 24th annual number, ready July 13t.

"No other country publishes so comprehensive and detailed a work."—Banker's Magazine.

Poor's Directory of Railway Officials.

Contains list of Officers of all Steam Railroad Companies in the United States and Canada; statements of all Street Railroad Companies and Private Tram and Lumber Railroads, etc. To these are added special lists of General Managers, General Superintendents. Chief Empiricals in the Mechanics, Master Car Builders, Manter Car Talaiters, Furenasing Agents, etc., with an Alphabe cal acte to the names of all the Officials, showing Lines with which each is connected, and an Ali habelical Index of Celes and woms, by means of which can be ascertained the Names of all Officials in any particular city or town at once. Found Railroads—In addition to the above, this work Contain Tall information of Railroads in Mexico, West Indies, Central America, South America, and Hawaiian Islands—the only complete and comprehensive statements of those enterprises published.

In one volume, 400 pages, cloth royal octave. Price \$2 per copy.

Edition for 1891, 6th annual number, ready July 13th.

"The least that can be said of this volume is that it is as accurate as it is comprehensive; it is far

"The least that can be said or this volume is that it is as accurate as it is comprehensive; it is tar ahead of any publication of the kind which has yet been attempted, and will be an extremely useful work of reference." Raitroad Gasette.

Poor's Handbook of Investment Securities

For the use of Bankers, Investors, Trust Institutions and Railway Officials, supplementing Poor's

Manual of Railroads. The only work published which presents comprehensive statements of the
indebtedness of all the States, Cities, Towns and Countles of the Country. In one volume, on
pages, cloth, royal octavo. Price \$2.50 per copy. Edition for 1891 ready in July.

Sample Pages of Either Book will be sent to any Address on Application.



TYPE NO PRINTERS' MATERIALS PRESSES THE JOHN RYAN CO. .: BALTIMORE MD.





# Colonade Hotel,

Chestnut St., Cor. 15th,

PHILADELPHIA, PA.

H. J. & G. R. CRUMP.

A FAVORITE RESORT FOR ALL SOUTHERN TRAVEL.



# PREMIER FLOUR

OF AMERICA.

Patapsco Flouring Mills. ESTABLISHED 1774.

PERFECTION IN FLOUR.

#### PATAPSCO SUPERLATIVE PATENT,

THE PREMIER FLOUR OF AMERICA,

IS UNSURPASSED FOR BREAD, BISCUIT OR PASTRY.

ASK YOUR GROCER FOR

Patapeco Superlative Patent,
Medora, High-Grade Winter Patent,
Baldwin Family. Patapsoe Family Patent, Orange Grove Extra,

C. A. GAMBRILL MFG. CO.

Office, 214 Commerce Street, Baltimore, Md.



Issues Policies of Insurance after Careful Inspection of the Boilers, covering Loss or damage to property, and Loss of Life and Personal Injury

-ARISING FROM STEAM BOILER EXPLOSIONS. -

Full information concerning the plan of the Company's operations can be obtained at the COMPANY'S OFFICE, Hartford, Conn., or at any Agency.

J. M. ALLEN, President. J. B. PIERCE, Secretary. W. B. FRANKLIN, Vice-Prest. F. B. ALLEN, 2d Vice-Prest.

- BOARD OF DIRECTORS:

J. M. ALLEN, President.
FRANK W. CHENEY, Treas. Chinny Bres. Silk Mfg. Co.
BERKEY, W. CHENEY, Treas. Chinny Bres. Silk Mfg. Co.
BERKEY, C. ROBINSON, Astorney-&-Law, Hartford,
DANIEL, PHILLIPS, of Adent Expos. Co.
HOM. HENRY C. ROBINSON, Astorney-&-Law, Hartford,
HON. HENRY C. ROBINSON, Astorney-&-Law, Hartford,
HON. FRANCIS B. COOLEY, of the Mal. Exchange basis,
LEVERET BRAINARD, of The Cass, Lockwood & Brainand Co.
GEM. W. B. FRANKLIN, late Vice-Prest. Coil's Patent
Fire Arms Hig. Co.
C. KIMBALL, Frest. myth Mfg. Co., Hartford, Conn.
Maryland Department—LAWFORD & McKIM, Gen. Agents, 20 S. Holliday St., Baltimore.

# ichmond & Danville R. R. Co. (PIEDMONT AIR LINE.)

THE SHORT AND DIRECT LINE FROM

WASHINGTON, D. C., AND RICHMOND, VA.

TO ATLANTA, AUGUSTA, COLUMBIA, ASHEVILLE, RALEIGH, GREENSBORO, SALISBURY, GOLDSBORO, BIRMINGHAM, MONTGOMERY, VICKSBURG, SHREVEFORT, MOBILE, NEW ORLEANS, TEXAS, MEXICO and CALIFORNIA, and the SOUTH AND SOUTHWEST.

and Southwestern Vestibuled Limited Train Daily between Washington and Atlanta Without Change. Two other through trains daily.

Without Change. Two other through trains daily.

Pullman's Palaco Buffet and Drawing-Room Sleeping Cars

Without Change to Atlanta, Montgomery, New Orleans, Augusta, etc.

Without Change to Atlanta, Montgomery, New Orleans, Augusta, etc.

We have the property of the Piedment Air Line, or to any Railroad Agent of principal lines North or South.

W. H. GREEN, JAS. L. TAYLOR, SOL. HAAS, General Manager.

Traffic Manager.

Western Maryland R. R.

Short Freight Line to Westminster, Frederick, Taneytown and Hagerstown, Md.; Waynesbere, Chambersburg, Shippensburg, Hanever, Gettysburg and Carlisle, Pa.; also points on the Frederick Division F. R. R., Gettysburg & Harrisburg R. R., Harrisburg & Potomac R. R., Shenandoak Valley R. R., Netfelk & Western R. R. and connections, also route of Great Southern Despatch.

All rail Fast Freight Line for Southern and Southwastern points, via. Bristol, Tenn. Freight received in any quantity at Hillen Station, and in car loads at Fulton, Canton and Jackson's whatf. Shippens desiring information will be called on. Send postal card with address to:

B. H. GRISWOLD,

G. R. A., Hillen Station. Baltimore, Ed.

# LINK-BELT MACHINERY

HANDLES ANY MATERIAL IN BULK OR PACKAGE

Send for Estimates and Reduced Price List of

EWART DETACHARLE LINK-BELTING,

THE LINK-BELT ENGINEERING CO.,

NICETOWN, PHILADELPHIA,

49 DEY ST., NEW YORK.



PHENIX BUILDING 138 JACKSON 5".

# ORTABLE HOISTS

STANDARD DRUMS.

Winze Hoists, Exploring Hoists, Wire Rope L vlage Machines, ORE BUCKETS, SKIPS, CAGES AND SHEAVES, STEAM PUMPS, BOILERS, Etc.

#### Gore Urills Prospecting **Diamond**

No Restrictions as to Use. For Surface or Underground Prospecting. THE ONLY RELIABLE DIAMOND DRILL MADE.

Improved Corliss Engine, Slide Valve and Straight Line Engines, Eclipse Rock Drills, Air Compressors and Quarrying Machines.

WRITE FOR WHAT YOU WANT.—— Cable Address, BULLOCK, CHICAGO.

Denver Branch, 1,310 18th Street, R. D. Hobart, Manager.

Rock Drilling and Air Compressing



TUNNELS, QUARRIES, MINES, RAILROADS,

And wherever Ore and Rock are to be Drilled and Blasted.

# RAND DRILL CO.

23 Park Place.

NEW YORK.

# Coal and Ore

WASHING and SEPARATING

WASHERS AND JICS. JENKINS & LINGLE, Machinery. BELLEFONTE, PA.

McLANAHAN & STONE, Engineers and Manufacturers, Blast Furnace, Rolling Mill and Heavy Castings and Machinery for all purposes.

RE JIGS, IMPROVED ORE WASHERS, with Revolving Screens and Picking Tables.

RIEVATORS AND CONVEYERS. Etc..

COMPLETE PLANTS FOR WASHING HEMATITE ORES AT LEAST COST.

Patent Foot Fower Machinery.



# Improved Portable Hoisting Engines

From 2 to 12 Horse-Power, Single and Double Cylinders, Single and Double Drum, second Drum entirely independent. The movement of one lever makes a high purchase hoist.

OUR OWN PATENTS

Especially adapted for bridge builders, quarrymen and building contractors. Consult your interest by writing for price-list and circulars.

The John F. Byers Machine Co.

RAVENNA, OHIO.

# SULLIVAN DIAMOND

Prospecting Core Drills.

SATISFACTORY MADE FOR PROSPECTING FROM THE SURPACE OR UNDER GROUND.

RAPID!

ACCURATE! ECONOMICAL! SPECIALLY ADAPTED TO SOUTHERN COAL AND IRON FORMATIONS.

Hand or Power Drills.

Capacities 300 to 4,000 feet. All sizes in stock. SEND FOR CATALOGUE.

Sullivan Diamond-Pointed and Steel Gang Quarrying Machinery. Steam Pumps, Boilers.

Contractors for prospecting mineral lands with the Diamond Core Drill.

## DIAMOND PROSPECTING CO.

15 and 17 N. Clinton Street,

Rastern Office, 18 Broadway, New York. Cable Address, "DIAMOND, CHICAGO."

M Hand Drill-Capacity a

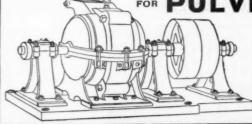
CHICAGO, ILL

# DAVIDS' PATENT DISINTEGRATING MILL.

Bones, Phosphates, Tankage, Ores, Clay, Fish, Scrap, Salt Cake, &c. FERTILI-ZER MACHINERY, Mixers' Rolls, Breakers, &c., &c. MARINE RAIL-WAYS, CLAY TEMPERERS. Send for Catalogue.

JAMES MURRAY & SON, 102 to 108 York Street, Baltimore, Md.

## Frisbee Lucop Mills FOR PULVERIZING



FRISBEE LUCOP MILL CO.

# GATES ROCK AND ORE BREAKER.



OF 2,000 POUNDS. Size 4—15 to 30 tons "5 5—35 to 40 " « 6—30 to 66 " "7 —46 to 15 " "8 3—100 to 164 "

aming 91-8 in. ring, according to character and narrimos of materials.

The principle involved in this Breaker acknowledged to be greatest success ever introduced into Stonebreaking lachinery. The Gates Breaker has made more railroad ballast nor and metal than all other kinds of breakers combined. Universally Adopted by Mining Companies. Many Hundreds Used by Railway Companies

nd references from Contractor

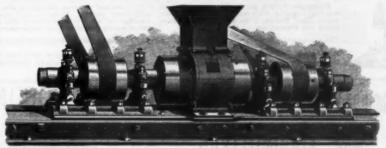
The Cornish Rolls Pulverizer.

Fine Crushing Plants, Concentrators and other Mining Machinery.

CATES IRON WORKS, 78a Queen Victoria Street, LONDON. 44 Dey Street, NEW YORK. 215 Franklin Street, BOSTON, MASS. 58 H South Clinton St., Chicago.

# STURTEVANT

The only Crusher and Pulverizer combined for reducing ores, phosphate rock, cement and all hard and refractory material, developing an entirely new principle (rock grinding rock), thus reducing wear on machine to a minimum. Unequaled in capacity and economy. A large number in successful operation. Used and endorsed by the most prominent engineers and users of grinding machinery. Grinds from one



to twenty tons per hour, according to fineness. Single machines in daily operation grinding 20 tons per hour magnetic iron ore, 100 barrels per hour cement, and 6 to 8 tons per hour phosphate rock to pass a 60-mesh cost far below any known process. Will not wear out. Machines running daily for several years practically as good as new. Wearing parts renewed at slight cost.



V. L. RICE,

Perfect Pres-Granula-No Tailings.

No Regrind-No Slime Any Degree of Fineness Obtainable

Also sole manufacturers of Patent Rock Emery Mill Stones. Superior to the best French Buhr Stones, requiring little dressing, and much more durable, emery being harder and more cutting. One pair Emery Stones at about same cost will outwear two pair Buhrs. The saving in dressing alone will more than pay first cost. Will fit any Buhr Mill Frame. Send for circulars and testimonials, and mention this paper.

#### COMPANY, STURTEVANT MILL

No. 88 Mason Building, No. 70 Kilby Street,

Boston, Mass., U. S. A.

TESTIMONIAL LETTERS.

WILMINGTON, N. C., July 21, 1891.

American Ore Machinery Co.,
No 1 Broadway, New York.

Gentlemen—In answer to your favor of recent date. I would say that after nearly six months' experience with the "Narod Mill," under varying conditions, I have never regretted the purchase of the one we have. I think the "Narod" is by far the best and most economical Phosphate Grinder on the market. The Mill does not take a horse-power to drive it, runs smooth without heating and has never broken down. The product varies a little as to the kind of Phosphate ground, but I have not known it to do less than 3% tons per hour; under favorable conditions the mill grinds 4 tons per hour and will continue indefinitely. Pieces of iron, &c., getting in with crude material do not bother it, as is the case with most all other mills, and this I consider one of its strongest points. I think \$100 would more than cover the repairs for a year. Yours truly,
C. E. BORDEN,
Supt. Navassa Guano Ca.

BALTIMORE, July 18, 1891.

BALTIMORE, July 18, 1891.

Gentlemen—In answer to your favor of the 16th, would say we are still running the Narod Mill. It is now over three months since we first started it, and the longer it runs the better we are pleased. We believe it to be decidedly the best Mill in use for reducing Phosphate Rock, Ores, &c. Any man of ordinary intelligence can learn to run the Mill in a short time.

W. G. H. MYERS, Supt. Maryland Fertilizer & Mig. Co.

Fineness requiated by size mesh of kereen in mill.

Capacity—Hard Quartz, 2½ to 3:
Phosphates, Cements, etc., 3½ to 4

rhosphates, Cements, etc., 339 to 4 tons per hour.
Only 15 to 29 horse-power required. Weight of each mill 5,600 pounds. The heavier parts can be made suitable for mountain use.

Pulverizer produces from 20 to 200 mesh fineness Granulator from size of wheat berry to 20 mesh, oth mills fed in size 3/4-inch cube and under. Deliver finished and uniform product through reen into hopper below. Only wearing parts are rolls and ring, which are made of best chilled about the iron, dense and fibreless, hence durable.

TRIPOD STANDARDS. TRIPOD ROLL SHAFTS. Latest, Most Durable, Most Capable Ever Made. Simple in construction. A novice can run them. Only two sizes of bolts used. No oil cups. Journals run in pots of oil. Grit cannot enter. Journals cannot heat. No dust chambers. No exhaust fans.

## AMERICAN ORE MACHINERY CO.

No. 1 Broadway, New York, N. Y., U. S. A.

H. B. ELDRIDGE, Southern Agent.





time in reduced cost of getting out Stone. Has no equal for efficiency and economy of op-eration. Pronounced by those who have used it the best machine for the purpose in the world. Send for illustrated catalogue, with full descrip-tions and letters from parties new

# Steam Stone Gutter Go.

Lincoln Iron Works. Machinery RUTLAND, VT. For Working MARBLE, STONE AND WOOD SHAFTING, PULLEYS AND GEARING. Send for Catalogue.

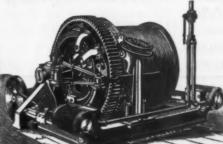
CHARLES BURGESS.

# CRUCIBLE TOOL STEEL

Including SELF-HARDENING STEEL for NAILERS', LATHE and PLANER TOOLS.

CYCLOPS STEEL WORKS, Titusville, Pa.

# Webster, Camp & Lane Machine Co.



## COAL MINES.

Automatic and Slide Valve Steam Engines, Boilers, Pumping Plants, Ca-ges, Ore Cars, Sheaves, etc.

KRON,





d for Illustrate e and Prices



#### PITTSBURGH, PA.. ORTER & CO., Light Locomotives and **Noiseless Motors**



Memo.—All work STEEL FITTED and built to duplicate system. Extra parts kept in stock. We keep on hand, ready for immediate shipment, LOCOMOTIVES AND MOTORS OF SEVERAL SIZES, WIDE OR NARROW GUAGE.



# Richmond Locomotive & Machine Works, Richmond, Ya



# MOTORS

Stationary Engines

#### BOILERS,

# BALDWIN



Locomotive Engines, Locomotives for Logging

of service, and built
auges and templates
SUGAR ESTATES

COMPOUND LOCOMOTIVES.

Steam Tramway Motors, Mine Locomotives, Furnace Locomotives. Burnham, Williams & Co., soo M. smean street, Philadelphia, Pa.

the CATHER SELF-OILING CAR WHEEL,
THE BEST IN THE MARKET.

WM. A. CATHER & BRO.,

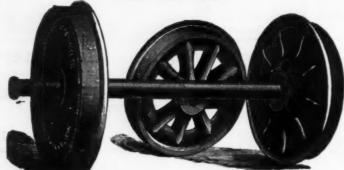
BLUEFIELD, W. VA.

# noxville Gar Wheel Go

KNOXVILLE TENN.

Manufacturers of all kinds of

For Railroads, Street Railroads, Ore and Coal Mines and Lumbermen.



Steam Hammers. Foundry Cupolas, Derricks, Crabs,

Horse-Powers, Shieves, Drill Heads,

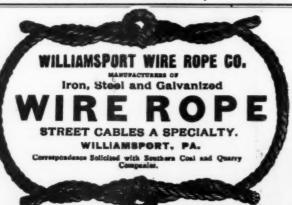
Gearing, Pulleys. Locomotives and Engines Repaired and Indicated.

CORRESPONDENCE SOLICITED

Guild's Automatic

Boiler Cleaner, Car and Locomotive Castings. Soft Iron Castings of all kinds. Heavy Castings a specialty. Wheels mounted on Axles if desired, with Oil Boxes and Bolts.

MENTION THIS PAPER



STEEL RAILS

#### PENNSYLVANIA

Standard Sections **Light Sections** Street Rails Fish Plates,

STEPHEN W. BALDWIN SALES AGENT

Frogs, Switches

CWAS, S. CLARK.

16 lbs. Full Size.

#### STEEL COMPANY

50 to 80 lbs. per yard 16 , 45 ,, 88 Bolts & Nuts, and Crossings.

NO.2 WALL STREET



# PHOSPHOR-BRONZE

THE PHOSPHOR BRONZE SMELTING CO. LIMITED
1 512 ARCH ST. PHILADELPHIA PA. U.S.A.
ORIGINAL MANUFACTURERS OF PHOSPHORBRONZE IN THE UNITED STATES AND OWNERS
OF THE U.S. PATENTS.

FROM 1-4 TO 15,000 POUNDS WEIGHT.

True to pattern, sound, solid, free from blow-holes and of unequalled strength. Stronger and more durable than from forgings in any position or for any service whatever.

60,000 CRANK SHAFTS and 50,000 GEAR WHEELS, of this Steel now running prove this.

Cross-Heads, Rockers, Piston-Heads, &c., for Locomotives.

STEEL CASTINGS of every description.

Send for Circulars and prices to

CHESTER STEEL CASTINGS CO.

## THE HACKNEY POWER HAMMER.



·No Rubber Cushions to wear out, \$

No Straps to break & & & & &

·No Springs to crystallize, & & &

adjustments to be made. a @

No alteration in speed for lightor

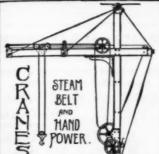


THE HACKNEY HAMMER CO., CLEVELAND, O.

#### REPUTATION.

BRADLEY & COMPANY, SYRACUSE, N. Y.

# MINER&PECK M'F'G CO. DROP FORGINGS BLAST FORGES



# Detroit Foundry Equipment Co.

DETROIT, MICH.

WHITING'S IMPROVED

# Car Wheel Foundry Plant

The Whiting Cupola Foundry Ladles and Reservoirs, Elevators, Clay Grinders, Wheel Breakers, Tumblers, Snap Flasks, Wheelbarrows, &c.

ndence Solicited.

## NGS AND SPENCER COMPANY. HARTFORD, CONN.



PURE COPPER COMMUTATOR BARS FOR ELECTRIC MOTORS OR GENERATORS. STEEL COMMUTATOR RINGS AND NUTS,

STEEL WRENCHES AND EYE BOLTS

DROP FORGINGS OF COPPER IRON AND STEEL OF ALL DESCRIPTIONS

# BEMENT, MILES &





Metal-Working Machine Tools

For Railroad Shops, Locomotive and Car Builders, Machine Shops, Steam Forges Ship Yards, Boller Shops, Bridge Wks.



By Using Engine Lathes, Planers, Chucking Lathes, Hand Lathes, and Machine Tools Generally

# LATHE & MORSE TOOL CO

## HOOPES & TOWNSEND



MACHINE & CAR BOLTS,

KEYSTONE BOILER RIVETS

COLD PUNCHED, CHAMFERED, TRIMMED AND DRILLED SQUARE AND HEXAGON NUTS.

BRIDGE, SHIP 🖀

Tank and Coopers'

RIVETS.

WASHERS.

Split and Single

KEYS.

THE HOOPES & TOWNSEND CO, WILMINGTON, DEL



THE ADJUSTABLE "Duplex" Die Steck Quick. Accurate. Durable.

15,000 new In Use. HART MANUFACTURING CO. OLEVELAND. O.





# PORTBLE, HAND OR BELT DIE MACHINE.

Double Application of Power. Double Leader Screw Instantly Changeable, range from 1 to 6 In. Pipe. Write for Description and Prices

WELLS MACHINE WORKS, FOSTORIA, O.

# SAUNDERS'



TRADE .X.L

Pipe Cutting and Threading Machine.

BEWARE OF IMIATIONS. None genuine without our Trade Mark and name. Also

Patent Wheel Pipe Cutter STEAM AND GAS FITTERS' HAND TOOLS,

Pipe Cutting and Threading Machine FOR PIPE MILL USE A SPECIALTY.

Send for Catalogue B.



22

Fill enable you to see in this list of Specialties some at least that are

SEASONABLE AND DayEXTRA LARGE WANIFOLDS, y-inch and 4-inch Bodies, with
of any desired either or number. ORNAMENTAL PIPE OOIL
of any desired either or number. ORNAMENTAL PIPE OF DAY
of the Commental Heating Colls of Wrought Iron Figure Packing.
Later, requires no Facking. THTHEGO for Building Ornamental Heating Colls of Wrought Ison Pipe.

THE AMERICAN UNION, for Pipe Joints, requires no Packing.

THE AMERICAN UNION, for Pipe Joints, requires no Packing.

THE AMERICAN LONGSOREW, also for Pipe Joints, without Packing.

PIPE RAILING FITTINGS, in Malistable Iron, in Pelished Brass, and in Great Variety. AWMING FRAME FITTINGS, Malistable Brass, and Gast Iron, in Censul Variety. STRAME OLUE REATERS, with Ison or Copper Pots. Made in Nineteen Sizes. FOOT. VALVES AND STRAINERS, Sizes made, 3; to 25 inchest. TYPE ALBERTS, Sizes made, 4; to 25 inchest.

THE AUGUST LINES AND GREAT LONGSON WATER GAUGE REFILECTORS make a "Red-Line" Gauge Glass of the Regular Scotch Glass Tube. THE MODEL EMBOTOR. A chemp form of Scenam Pump for Moving Liquids. ECLIPSE PIPS.

CUTTING MACHINES. Powerful, Simple, Chemp, Effective. Three Sizes for Power. "EURERA" MAYD

PIPE CUTTER. None Work Better. None are an Durable. Mone Cost. PIPE CUTTER. No as Little Money. SMITH'S PATENT RATCHETS, Sin ful. Cheap. BARR'S PATENT STEAM TRAP, Absorber and the Control of fol. Chesp. BARE'S Fanance Steam Trap extrast, capacing to matic, Effective, and the Chespert Steam Trap extrast, capacing to CRETENBLAL OPEN-JAW FIPE TIERS. A first-class Tool. Chesp and Effective. Made in four sizes. TEE "PEDAL" RADIATOR.

Pancoast & Maule, Philadelphia, Pa.



# VENETIAN BLINDS WETALLIC SHO-512 TATOMA BLOG. S. J. FISHER CHICAGO.

## Sliding Blinds and Screens.

The "Willer" Sliding Blinds are made in sections to slide vertically, are balanced by springs, contain Rolling Slats wherever wanted and are furnished complete, including finish and hardware.

The "Willer" Folding Blinds are furnished with our improved Rolling Slats without the usual wooden rod in frost.

"Regular" Inside Folding Blinds, as furnished by us, are of better ma-terial and workmanship than usually supplied by others.

The "Willer" Sliding Window

Screens slide up and down, are balanced by springs and cover either half of the window.

The "Willer" Screen Doors are noted for their unique and tasty designs and their superior quality of workmanship.

ALL GOODS MADE TO ORDER ONLY.

CATALOGUE ON APPLICATION

Willer Manufacturing Qo., MILWAUKEE, WIS. 

#### Stow Flexible Shaft



tured by the

STOW MFG. CO.

Binghamton, N.Y.

Established in 1875.

For Tapping Reaming Stay Bolt Holes in

BOILERS.

ROLLER and Detachable Chain Belting,



CONVEYERS,

**Driving Belts** 

Coal, Ores, Grain, CLAY, BRICK, &c.

The Jeffrey Mig. Co.

121 W. State St., Columbus, 0. Chicago Branch, 48 8, Canal St.

Also manufacturers of the Jeffrey Electric Coal Minins Machines, Coal Drills and Haulage System. Send for our illustrated catalogue.

#### G. L. Stuebner & Co.



sebner & Woods, Self-Dumping Steel & Iron Hoisting Tubs,

de and Bottom Dum ars for Coal Elevat on Wheelbarrows, Hois ocks, Bottom-dumping I r Coaling Locomotives. LONG ISLAND DITY, N. Y.

SOAP A WHOUGHIN CANDLE

Foot and Power Lathes, Drill Presses, Scroll Saw Attachments, Chucks, Mandrels, Twist Drills Dogs, Calipers, etc.
Lathes on trial. Lathes or payment.
Send for catalogue of Outfit for Amateurs or Artisans.
Address M. L. Shepard, Agent

Address N. L. oner Address, Ohlo THE SIMMERLY DERRICK CO. 186 to 194 W. Center St.



Builders of STEAM REVOLVING DERRICKS for handling Coal, Ore, Stone, Logs, Phosphate, etc., etc., also for Crib Building, Constructing Canals, Excavating, etc. Also manufacturers of Coal and Ore Buckets, Cars, Steam Pumps and Patent Friction Clutches.

# SEND

FOR OUR FIFTH EDITION HOW TO SELECT, LAY

# TIN ROOF.

SENT FREE OF COST.

MERCHANT & CO

PHILADELPHIA.

CHICAGO.

#### The WELLINGTON BELT HOLDER.



LATELY IMPROVED.

Just the thing shift large elts driving

SANTLEY LUMBER CO., Wellington, Obio.

## TAPER-SLEEVE PULLEY WORKS

211 W. 12TH ST. ERIE, PA.

106 LIBERTY STREET.

New York Head-Quarters,

ON AND AFTER MAY 6, 1891.

The Ball Engine Co.

ERIE, PA.

E. T. COPELAND & CO.

Factors Selling Agents.

# leveland

# TEAM ENGINES

DOILERS.

ERIE ENGINE WORKS.

FIRST-CLASS BOILERS,

Erle and Atlas Engines,
Tanks, Stacks. Tubes,
Gins, Mills, Injectors, Shafting,
Pulleys, Belting and Fittings.
COMPLETE MILL. ENGINE AND GIN OUTFITS
At Bottom Prices.
Don't fail to write us before you buy.
Address
GEO. R. LOMBARD & CO., Augusta. Ga.

RICHMOND, INDIANA.

WE MAKE

Tubular Boilers, Six-Inch Tube Boilers, Two-Flue Boilers, Fire-Box Boilers, Tanks, **Smokestacks** 

Send for Catalogue "A" to

FULTON BOILER WORKS,

JOHN T. CAULFIELD, Proprietor.

## WEST BRANCH BOILER WORKS.



Boilers, Stacks, Tanks and Sheet Iron Works. Steam Fittings of all Kinds. E. KEELER CO., Williamsport, Pa.

BRYANT IMPROVED AUTOMATIC High-Speed Safety Engine.



THE WHITMAN & BARNES MEG. CO. Syracuse, N.Y. natic govern

power from a to 5 h.p. This is the safest, cheapest and most reliable



THE FRONTIER MANUFACTUR-ING CO., find as a result of two years of satisfactory trial that their

#### PATENT LEVER FLUE CLEANER

is the best in the market. Why? Because the ends are protected from breakage by the button, its native flexibility entirely supercedes the old springs; the only cleaner with a follower to remove the refuse. Quicker and more easily adjusted than any other; better made; does better work: lasts longer.

NEW SYSTEM

# ater \* Fifters

For All Purposes and of Any Desired Capacity.

J. A. BOWDEN & CO.

DETROIT, MICH.

"IDEAL"

WROUGHT IRON FENCE.

Engines, Boilers, Shafting, Pulleys, Hangers, &c.

F. M. ARTHUR & CO., Knoxville, Tenn.



WIRE SCREENS, WIRE CLOTH, And All Kinds of WIRE WORK for Churches, Institutions etc.

H. BALDERSTON & SON,

122 South Calvert Street, BALTIMORE, MD.

# WIRE RAILING

ORNAMENTAL WIRE WORKS.

DUFUR & CO., 311 N. Howard St., Baltimire, Wire Railing for Cemeteries, Lawns, Gardens, Offices and Balconies; Window Guards, Tree Guards, Wire Cloth, Sieves, Fenders, Cages, Sand and Coal Screens, Iron Bedsteads, Chairs, &c.

## IRON RAILINGS

Bridges, Parks, Residences.

RON DOORS AND SHUTTERS BUILDERS' IRON WORK.

BELMONT IRON WORKS, LIMITED.

Successors to PHILADELPHIA, PA.

ART WIRE

IRON WORK.

Illustrated Catalogue Free. New designs Roof Cresting Finials, Tower Ornaments, Weather Vanes, Stable Fixtures, Fire Escapes, Window Guards, Grilles, Balcony Railings, All kinds of crnamental, Wire, Iron and Brass work for Office and Counter Railings, and for Interior Decoration.

T. BARNUM, Detroit, Mich.

WIRE # WIRE GOODS. S TOPION S SAYLOR

> Artistic Work a Specialty. Send for Catalogue and Mention this Paper.



THE CHAMBERLIN Screw Stump Machine. The only Stump Machi-the world that success-pulls all classes and siz-tumps. Write for catal-and price list.

CHAMBERLIN MFR. CO.

Stow Flexible Shaft Co., Limited,



tion the

# Read What a Michigan Miller Says of the Case Company.

# STURGIS ROLLER MILLS, BAUER & BUHRER, Proprietors. STURGIS, MICH., July 12, 1890.

THE CASE MANUFACTURING CO., Columbus, Ohio.

GENTS—We started mill July 7th. The 12 pair 9x18 rolls you furnished us worked perfectly. They are so easy to adjust, so simple to handle, feed so regularly, grind so nicely and even and work so smoothly on the whole, that we have no hesitancy in stating that we cannot see how they can have a superior, if equal. Aside from their perfect work, they are models of beauty and finish, and a decided ornament to any mill. We enclose clippings from papers. We are, with best wishes, Very truly yours,

BAUER & BUHRER.

For full particulars regarding the BEST FLOUR OR CORN MILL MACHINERY, address

# The Case Manufacturing Company. Columbus, Ohio.

#### WESTERN IRON MARKETS.

CINCINNATI, September 19, 1891. No new elements have been introduced into the iron market since last report. Some troubles in Pittsburg involving old concerns of high standing have operated as a slight check on the general improving tendency. On the other hand, the feeling is very firmly held that an improved demand is bound to come, and that in all probability it will cause an advance in prices. Already there is a noticeable enlargement of inquiries and an increase of sales. Some of the largest Southern companies have booked all they care to at present prices, and will sell no more for 30 days at least, unless at an advance of 35 or 50 cents per ton. Other companies again are taking business at the same rates that have been current for a month past, but refuse to make a penny concession under any circumstances, and are unwilling to scatter deliveries far ahead.

The tonnage of orders placed since last week's report is probably 25 000 tons in Southern iron alone. No concessions were made on any of this, and some of it was known to have gone at a slight advance. The bulk of it was confined to No. 3 foundry, gray forge and No. 2 soft grades.

s

A.

0

ed,

, PA

S,

In car-wheel irons there has been a better demand and some sales. Railroads, however, are not far enough out of financial restriction to buy equipment as they would like to. It is believed that the improved market for railroad bonds will in a short time alter this state of things and bring the railroads in as free buyers. There is no question but that the Northern roads very much need to increase their available rolling stock.

All the general features of the situation continue very hopeful. What change there has been, has been in the way of improvement. The warm weather has helped to complete the great corn crop of the North and West. Money is easier than it has yet been, and there is a fair disposition on the part of capital to engage in new enterprises. Stocks of iron continued about stationary during last month, and, it is thought, are being reduced this monththis in face of high-water-mark produc-

We quote for cash f. o. b. Cir	icii	nat	i:	
Southern coke No. 1 foundry Southern coke No. 2 foundry and			_	_
No. 1 soft	13	7500	14	00
Hanging Rock coke No. 1	16	5062	17	50
Hanging Rock charcoal No. 1	30	000	22	00
Tennessee charcoal No. 1	16	50(0)	17	50
lackson Co. stone coal No. 1	16	5060	17	00
Southern coke, gray forge	12	5040	12	98
Southern coke, mottled	12	200	12	<b>*0</b>
Standard Alabama C. W	10	5000	20	20
Tennessee C. W	- 4	300	10	20
Lake Superior C. W	-8	2	-9	-
		200	20	30

St. Louis, September 19, 1891. The placing of several large orders for cars by different railroads has made the iron market quite active during the past week

Car-wheel as well as coke irons have been offered for less than cost of production, and from the present indication think the furnaces will soon advance their prices, as some of them have round lots sold ahead for several months' delivery.

Old wheels, which have been a drug on the market, are now being looked for by

Reports from Birmingham are that some largest iron companies in that territory have made some heavy sales at advanced figures, and they are now holding gray forge at \$10 cash furnace.

CHICAGO, September 19, 1891. Actual sales in this territory during the past week have been small; numerous inquiries being received, however, from parties wanting low figures and long deliveries, believing this to be a good time to place orders. Southern furnaces are inclined to be more independent, being well supplied with orders and anticipating a stiffening in prices between now and Janu-

There seems to be no signs of activity in Lake Superior charcoals; prices, however, hold firm.

We quote for cash f. o. b. cars Chicago: 

BUFFALO, September 19, 1891.

There are many indications of future activity, but dullness has been the most prominent feature in this market for the past week. Railroads are in great need of cars and of ready money. The extreme scarcity of the latter among them, however, prevents heavy purchases.

The stove and heater foundries, almost without exception, are busy.

Prices remain very low and without change. Production seems to be but slightly in advance of consumption.

We quote for cash f. o. b. Buffalo: No. 1 X Fdy., Strong, Coke Iron, Lake Su 

 No. 1 X Fdy., Strong, Coke Iron, Lake Superior ore.
 \$,16 50

 Ohio Strong Softener No. 1.
 16 50

 Jackson County Silvery No. 1.
 18 86

 Lake Superior Charcoal
 18 30

 Tennessee Charcoal
 17 50@10

 Southern Strong No. 1
 16 75

 Southern Soft No. 1.
 16 00

 Alabama Car Wheel
 23 00@22 50

 Hanging Rock Charcoal
 23 00@34 00

PHILADELPHIA, September 19, 1891.

The iron market still continues to im prove. Orders for foundry irons are coming in quite fully, and in most every instance buyers are in a great hurry and request early deliveries, showing that stocks are light in consumers' hands.

The recent rumors regarding trouble of a financial nature regarding one of the largest Pittsburg iron manufacturers have proved to be founded on fact, and consequently Pittsburg is suffering a slight temporary depression; otherwise we can report a decided improvement all along the line. Several offers on large blocks of iron for delivery next year at present prices have been refused.

prices have been refused.	
We quote for cash f. o. b. Philade	elphia:
Ohio Softeners, No. 1 X\$19 co	@\$19 50
Standard Penn. No. 1 X .: 17 50	18 00
Good Neutral Forge 16 50	17 00
Standard So. C. W. Bibb, Attalla, etc. 20 00	(g) 20 50
ROGERS, BROWN A	Co

THE entire plant of the Bessemer (Ala.) Rolling Mills will be sold at public auction at Birmingham, Ala., October 14, 1891. This mill possesses exceptional shipping facilities, six lines of railway running into its yards. It is located within a quarter of a mile of two and within half mile of three other furnaces in full blast. It procures its iron without paying freight, and its coal at from \$1.10 to \$1.20 per ton. The advertisement in the MANUFACTURERS' RECORD gives further particulars.

#### Front Royal (Va.) Notes.

FRONT ROYAL, VA., Sept. 19, 1891. Editor Manufacturers' Record :

Front Royal continues to build and to grow. Every industry and factory is prosperous, and the people are industrious, happy and successful. The Gazette in a rece nt article publishes a summary of the condition of the various enterprises, which shows them to excellent advantage:

"The Randolph-Macon Academy building is beginning to show up in the most attractive manner.

"Material is being gotten together for the three large brick store-rooms on Royal avenue.

"The H. B. Graves furniture building is being put under roof. This factory will soon be turning out the finished product.

"The Royal Building Co. has just put in the foundations for ten more houses. Nine are rented.

"The G. W. Shank Manufacturing Co.'s main building is under roof. The engine and boiler rooms are nearing completion, and a large drying house will soon be

under contract. They are hustling things.
"Mr. C. F. Sumption's wagon works is
making a full run. His large building has been nicely painted, and it looks well in its new dress.

The tack works is a very busy place. Every department is busy preparing to fill the rush of orders.

"The Riverton Baking Co. is pushed to the utmost filling its orders for cakes and crackers.

The Blue Ridge Knitting Mills have orders ahead. They make good wear, which is in demand.

"The Riverton Mills Co. has put in new machinery, and as they manufacture firstclass flour, housekeepers want it everywhere.

"The collar factory has a steadily increasing call for its make of hand-made This company tans its own stock collars. and buyers rely upon getting superior collars.

"The Front Royal Cigar Factory has many large orders.

"The Carson & Sons Lime Works are run to their full capacity, but they can't reach the scope of their trade. Additional works will be erected.

"Now all this mighty rush of busy industries means something. It means that the managers of our industrial enterprise have done a great work. It means that the stockholders should be satisfied with what has been accomplished. It means that Front Royal and Riverton are already a grand success."

Jno. J. Corder, who has almost completed one house, has two more under way.

The first annual meeting of the stockholders of Lexington & Front Royal Investment Co. was held in Lexington this

LAWRENCEBURG, TENN., Sept. 18, 1891.

The Lawrenceburg Land & Mineral Co. desires to exchange some of its best real es-tate, at fair cash valuation, for engine of from 100 to 200 horse power. This engine will be erected on the company's property, and power will be leased to small manufacturers, who will pay nominal rental for same. The company will not pay cash for such power, but the lots which it offers will be greatly enhanced in value by the location of the power. Address V. S. Pease, secretary, Nashville, Tenn.

Buena Vista (Va.) News.

BUENA VISTA, VA., Sept. 19, 1891. Editor Manufacturers' Record:
The Buena Vista Fire Clay Co. is one of

ur industries that has been inaugurated since the recent financial depression set in. Nevertheless this did not interfere with its prosperity, and the enterprise has moved steadily forward. These works com-menced to turn out their product last May, and since that time have had to increase the number of kilns so that they could burn the moulded product as fast as the machinery and working forces were capable of turning it out.

The clay deposits from which the works are supplied had been thoroughly tested as to their qualifications before the plant was settled upon, and the superiority of the product has been fally demonstrated by the satisfaction it has given at the iron furnace, the Rarig works, steel works, glass works and other places where it has been used here.

The need of ore for the Buena Vista furnace has had the effect of opening up with renewed activity several of the old iron ore beds along the line of the Norfolk & Western Railroad north of Buena Vista. From a branch road which penetrates four miles into Augusta county, opposite Stuart's draft station, 40 tons of ore a day are shipped to the furnace.

At Cotopaxi some time ago the shipment of three car-loads a day began. Not far distant from this latter point a branch road is being constructed up South river to penetrate fine ore property, from which shipments will before long be commenced. Also a few car-loads have been sent, with prospect of more, from the Dorothea mines adjoining Irish creek.

The Buena Vista Publishing Co. has been organized with a capital of \$25,000, in shares of \$50 each, all of which has been spoken for. The Advocate will hereafter be published by this company. At a stockholders' meeting to be held soon the propriety of establishing a daily paper will be discussed. They also contemplate the erection of a handsome three-story brick office building.

A RADIAL drill possessing many new and valuable practical features has just been produced in Cincinnati, Ohio, by Dietz, Gang & Co., 58 and 60 Plum street. The tool is designed to meet general machineshop use, and will be put on the market at a popular price. Illustrations and description will appear in the MANUFACTURERS' RECORD as soon as engraving are com-

A SPLENDID illustrated catalogue of electrical supplies has just been issued by the lighting supply department of the Tho son-Houston Electric Co. Its 200 wellprinted pages contain the most accurate information about everything in the electrical supply line, together with the carefully-prepared price-lists and instructions for ordering. A great portion of the goods described are manufactured solely by the Thomson-Houston Electric Co., but the products of other manufacturers are also listed, so that this catalogue covers the entire field. This useful book may be obtained from the principal office, 620 Atlantic avenue, Boston, Mass., or from any of the 13 branch houses of this great

# The Markets.

OFFICE MANUFACTURERS' RECORD, BALTIMORE, September 23. 1891.

Everything in the iron trade points to improving conditions, but manufacturers, brokers and jobbers are rather dissatisfied at the tardy development of demand. over the South the reports are of a favorable character. A good many orders for pig iron are being placed, but there is no particular rush for any kind. New York quotations for Southern No. at \$16 to \$17, and good continue brands of No. 2 will bring \$16. Southern forge is quoted at \$14 to \$14 50. In Northmarkets quotations continue where they have been for months past, and the only change over a week ago is that mill men and founders have been increasing their orders because of a hardening ten dency observable. There have also been large sales of Bessemer pig. Prices of material entering into steel billets and slabs continue low. In other branches of the iron trade there is nothing new to note. In the Northwest there is rather more activity than usual. A good deal of railroad repairing is going on, and that is helping car builders, founders, machinists and others. Car builders are living in almost daily anticipation of large orders. Bridge builders have been quite active buyers of structural material within a few days, particularly in Pennsylvania. Merchant steel and track supplies in the West are very active. At Cincinnati prices are low for inferior brands of iron. At Pittsburg increased activity is noted in nearly all lines. The pipe-iron makers met, but did nothing with quotations. Large sales of billets and slabs could be made at that place at a slight drop below present prices. Large lots of steel rails were sold by Pennsylvania mills last week, but other mills have not booked much business. There is not much doing in Lake ore at Cleveland.

In Eastern Pennsylvania manufacturers and brokers report increased inquiry for nearly all kinds of iron and steel products, and an improving demand seems near at hand. At New York there are a good many signs of coming activity, but it will require a week or two more to allow influences at work to manifest themselves. The deliveries of steel rails for the first eight months of this year were 699,027 tons; orders at that date, 894,798 tons. Steel rail quotations, \$30 to \$31; merchant iron, 1.70; angles, 1.90; sheared plates, 2.10; tees, 2.50; beams and channels, 3.10; sheet iron, 3 to 31/2 cents; old rails, \$21 to \$21.50.

#### HARDWARE.

There is a better feeling throughout the South, and reports from all sections are encouraging. Prices continue low, but orders are coming in more rapidly and for larger quantities, which may have the tendency to stiffen weak kneed manufacturers. Handled hoes were sold at low prices last season, and it was thought that better rates would be obtained the coming season, but the indications are said to be that prices will be even lower. Common carriage bolts are firmer than

they have been, and the only cutting reported is from large jobbers, who in many cases divide the quantity discounts.

#### Close Bidding on Water Pipe.

The Howard-Harrison Iron Co., of Bessemer, Ala., has captured another pipe contract, this time from Atlanta, the amount being about 6,000 tons in 20, 30 and 48-inch sizes. The price is \$21.50. The closeness of the bids of two companies is shown by the following:

Howard-Harrison Iron Co., of Bessemer—For 20 and 30 inch pipe, \$21.50 per ton; for 48 inch pipe, \$21.50, and for specials. 21/2 and 3 cents a pound.

Chattanooga Foundry & Pipe Co., of Chattanooga—For 20 and 30 inch pipe, \$21.50; for 48 inch pipe, \$21.50, and for specials, 24 and 34 cents a pound.

specials, 2½ and 3½ cents a pound.

Radford Pipe & Foundry Co., of Anniston—For 20 and 30-inch pipe, \$21.80 per ton of 2,000 pounds; for 48-inch pipe, \$28, and for special castings, etc., \$60 per ton.

LIPPINCOTT'S MAGAZINE for October, 1891, contains: 'Lady Patty," by The Duchess; "Healthy Heroines," by Julien Gordon; "A Tiffin with a Taotai," by Edward Bedloe; "October," by Florence Earle Coates; "The Bells of San Gabriel," by Gertrude Franklin Atherton; "A Minor Chord," by Ella Wheeler Wilcox; "Dream and Deed," by Katharine Lee Bates; "The Common Roads of Europe," by John Gilmer Speed; "Sea-Bird of the Broken Wing," by Roden Noel; "Sonnet" (upon Courbet's picture, "The Wave"), by R. T. W. Duke, Jr.; "With Washington and Wayne," by Melville Philips; "The Lost 'Landfall' of Columbus," by William Agnew Paton; "Divided," by Helen Grace Smith; "Humanitarian Hours," by Lilian North; "Rhymes of Childhood," by R. M. Johnston; "With the Wits" (illustrated by leading artists).

AN electric-light plant, located in one of the best towns in Georgia, is advertised for sale in this issue of the MANUFACTURERS' RECORD. It is reported that this plant (in connection with an established insurance business) now pays from \$3,000 to \$4,000 per year net. It is offered for \$9,000. Geo. E. Hoppie, P. O. Box 175, Atlanta, Ga., will give particulars.

# NASHVILLE RAPID TANNING BELT MANUFACTURING CO.

Manufacturers of Oak Tanned and Rawhide Leather Belting, Lace Leather, Picker Leather Ropes, Lariats and other Rawhide Leather Goods.

# Thacher Patent Belt Fastener.



THE CLAFLEN MFG. CO.

The Only Manufacturers of Raw Hide Beiting in the Country.

The Chicago Rawhide Mfg. Co.

RAWHIDE BELTING, LACE LEATHER,

Picker Leather, Stock and Farm Whips, Washers, Hame Straps, Hame Strings, Halters and other Rawhide Goods of all kinds, by Krueger's Patent.

This Belting and Lace Leather is not affected by steam or dampness; has more grip than any other; never becomes hard; is stronger, more durable and the most economical Belting made. Especially adapted for the Southern trade on account of its resistance to moisture. The Rawhide Rope for Round Belting Transmission is SUPERIOR TO ALL OTHERS.

73 and 78 OHIO STREET, OHIOAGO, ILL.

We <u>Guarantee</u> DIXON'S BELT DRESSING to <u>Prevent Slipping</u> and <u>Preserve the Leather.</u> Send for Circular and Testimonials. JOS. DIXON CRUCIBLE CO., Jersey City, N. J.





# COTTON WIRE BELT

The Maddox Belts are especially adapted for Dye-houses, Bleacheries, Tanneries, Pulp, Paper, Cotton and Woolen Mills, and all other places for the transmission of power where heat, moisture, etc., cause serious trouble. It runs true and almost noiseless, adapting itself from its flexibility to all positions, closely hugging the pulleys through all changes of weather and other causes. Write for prices to

MADDOX WIRE BELTING CO.,

LEATHER PULLEY COVERING.

Saccarappa, Maine.

RAWHIDE LACE LEATHER:



ST. LOUIS. MO



MULLER LATHES.



BRADFORD MILL CO. & Evans, CINCINNATI, O. Sth & Evans, CINCIN

COOL, FRESH AIR FOR WORKROOMS.

Constant change of air secured by the use of

#### CLARK'S ADJUSTABLE BLADE EXHAUST FANS



Great Capacity. Thirty Days' Trial FANS FOR DRYING MATERIALS of all kinds Catalogue f ee CEO. P. CLARK,

Windsor Locks.

PONES, SCALES THE BEST -FULLY WARRANTED == 5 TON SCALES \$ 60 FREIGHT PAID ONES OF BINGHAMTON NY

M. P. SATTERTHWAITE.

173 SUPERIOR STREET, CLEVELAND, OHIO.

# ACHINE TOOLS

Northern Ohi Agency for McNAULL MACHINE & FOUNDRY CO. Universal Radial Drills, &c.,
Three designs and six sizes.

Headquarters for GAS ENGINES,

Mention this paper. Write for Circulars.



Power **Punches** 

Shears Combined.

uble Power Punch Double Power Shears.

6.D.COLTON & CO. GALESBURG, ILL.

#### ER &

DIRECT REPRESENTATIVES:

AMERICA AXE & TOOL CO., Axes, Hatchets, Adzes, Scythes and Eye Hoes.
HUBBARD & CO., Shovels and Spades.

AMERICAN SCREW CO., Screws, Bolts and Wire Nails.
A. FIELD & SONS, Tacks and Nails.
WHEELING HINGE CO., Wrought Goods, Batts, &c.

L. D. FROST & SONS, Philadelphia Carriage

JOHN SOMMERS' SON, Faucets.
NICHOLSON FILE CO., Files.
HARTFORD HAMMER CO., Hammers and

Sledges.

BOSTON & LOCKPORT BLOCK CO., Tackle Blocks and Trucks.

BIOCKS AND Trucks.
SHEELE & KLEMM, Forks and Rakes.
HOLROYD & CO., Stocks and Dies.
CLARK BROS. & CO., Carriage and Plow Bolts,
Nuts, &c.

es,

e.

BRANFORD LOCK WORKS, Locks and Knobs, WHITE MOUNTAIN FREEZER CO., White Mountain, Granite State and Arctic Freezers.

BLAIR MANUFACTURING CO., New Rasy and Bay State Lawn Mowers.
WINCHESTER HANDLE MFG. CO., Fork, Shovel and Hoe Handles.

SAMSON CORDAGF. WORKS, Braided Sash Cords, &c.
COLD DOMINION IRON & NAIL WORKS CO. Walker's Horse and Mule Shoes.

FLUME & ATWOOD MFG. CO., Copper Rivets, Jack Chains, Hand Lampa & Burners. JOHN C. SCHMIDT & CO., Trace and Coll Chain. BRANFORD LOCK WORKS, Locks and Kn

Chain.
EXCELSIOR HOOK & BACK BAND CO.

EXCELSION HOOK & BACK BAND CO.

KLEIN, LOGAN & CO., Picks, Mattocks, &c.

A. J. PHILLIPS & SONS, Window Screen boors.

SOUTHERN RAILWAY SUPPLY CO., Lace
Leather and Hame Strings.

WM. E. HOOPER & SONS, Back Bands and
Webblug.

OFFICE-No. 14 W. German Street, BALTIMORE, MD.



KEY-SEATERS. PORTABLE and STATIONARY.

Rack-Cutting and Key-Making Machine Attachment. GIANT KEY-SEATER

COMPANY. East Saginaw, Mich



STRONG WATER PROOF,

Address W H. FAY MANILLA CO., 516, 518 & 500 Point St., CAMDEN, N. J. Agents in a

# PHOSPHATES.

ENTERTAINING, INSTRUCTIVE AND PRACTICAL.

# LUCRE

Where It Abounds

# How to Obtain It

Is the title of a new 64-page pamphlet on the Phosphate Fields of Florids, which will

be issued September 1st.

It is the production of Dr. Jay Shrader, the phosphate historian, whose previous work "The Under-Ground Wealth and Prehistoric Wonders of Florida," and weekly contributions to the MANUFACTURERS' RECORD, have been read with interest and profit by tens of thousands all over this country and a large part of Europe.

"Lucre" is written in the forcible style peculiar to its author, and gives the history of the discovery as well as the geological history of Florida phosphates, their physical and chemical characteristics, order of occurrence, location and extent, progress of development etc.

chemical characteristics, order of occurrence, location and extent, progress of development, etc., etc.

It also gives the various methods of mining, washing, drying, screening, etc., with accurate descriptions of machinery and appliances used, all told in an entertaining way, the usual monotony of detail being relieved by occasional flashes of quaint humor, which m ke the book interesting to all readers.

Better than all, it furnishes reliable information as to cost of plant, expense of mining and profit of the business, and a large sectional map of the pebble phosphate district, giving location of deposits, location of plants that are mining, water ways, transportation lives and seaports, thus giving a clear insight into the most lucrative business on the American continent. No mining industry is so far removed from the realm of chance as that of phosphate, nor does any other mining pursuit yield such tremendous profits.

"Lucre" teles you just where to find the safest and best investment for your money, and points a road to wealth which hundreds have pursued with the happiest results. That road is open to you! "Lucre" will put you onto it.

The first edition of 25,000 copies will be ready September 1st. Advance orders will be filled before any other books are sold.

Send in your orders now. Price 12 cents per copy post paid. Usual discount to book and news dealers.

VARN & VARN, Publishers,

BARTOW, FLORIDA.

# Conveying, Elevating and Power Transm

For Cotton Seed Oil Mills, Phosphate and Fertilizer Works, Ginneries, Starch Sugar Refineries, Cement Works, Rice Mills, Grain Elevators, Flour Mills, Etc.



"SOUTH BEND" Wood Split Pulleys, With Iron Hubs and Iron Bushings. Will Not Slip on Shaft. No Danger From Fire.

## W. CALDWELL & SON, GENERAL MACHINISTS,

127, 129, 131, 133 West Washington Street,

CHICAGO, ILL.



CALDWELL STEEL CONVEYOR.

Automatic Power Grain Shovels.



AVERY PLAIN AND CALDWELL-AVERY CORRUGATED SEAMLESS STEEL **ELEVATOR** BUCKETS.



LARGE AND COMPLETE STOCK FOR IMMEDIATE SHIPMENT.

PROCKET WHEELS, Link Belting, Cotton, Rubber and Leather Belting, Elevator Boots, Bolts and Buckets, Spouts, Gearing, Friction and Jaw Clutches, Hangers, Shafting, Pillow Blocks, Iron Pulleys, Set Collars, Take-Up Boxes, Turn Heads, Perforated Metal, Wire Cloth, Etc.



ATHER:

THER:

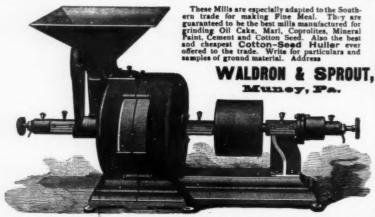


The J. B. ALLFREE MFG. CO.

78 to 86 Shelby Street, INDIANAPOLIS, IND. Four-Roller Wheat



#### FRENCH BURR



Manufacturers of FRENCH BURR MILLS, FLOUR BOLTS, CORN MEAL SIEVES, WHEAT SCOURERS AND CLEANERS, CORN BAR CRUSHERS, &c.

erfection Sash Balance.

The only NEVER-FAILING BALANCING DEVICE for Sash, which is Perfect in Material, Workmanship and Performance for REPAIR WORK as well as for New Buildings.

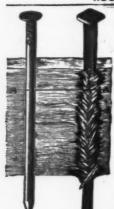
ATTACHED MORE EASILY THAN WEIGHTS OR ANYTHING ELSE.

ed and praised by architects and builders. Cheaper and bette ights with cords, pulleys, box frames, pockets, etc. No drafty frames when Perfection Sash Balances are used. Each Perfection ance is carefully inspected and tested, alld is fully warranted. ORDER FROM YOUR HARDWARE DEALER.

PERFECTION SASH BALANCE CO.

ROCHESTER, N. Y.





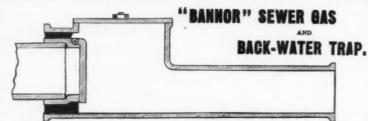
Works: SALEM, O.; FINDLAY, O.

General Office:

SALEM, OHIO.

BRANCH OFFICES:

261 Broadway, New York. 415 Phonix Bldg., Chicago. 133 Soulard Street, St. Louis. 4 Wiggins Blook. Cincinnati



For Standard or Extra Heavy Pipe. All Sizes Carried in Stock. including 2" and 10".

DURABLE. EFFECTIVE.

MANUFACTURED BY

HAINES, JONES & CADBURY CO.

High-Class Plumbing Goods,

1136 RIDGE AVENUE,

PHILADELPHIA, PA.



Covert Mfg. Co.. West Troy, N. Y.

AME, President and General Mapager. W. D. CAMPBELL, Secretary and THE CLAMORGAN COMPANY, Proprietors of

HILL CITY PIPE WORKS



Manufacture all kinds of Blast Furnace, Coking and Muning Ma-chinery: Boilers, Engines, Tra-way and Construction Car Cast-ings, and Tobacco Machinery, &c. Prices on application. LYNCHBURG. VA.

CHATTANOOGA FOUNDRY & PIPE WORKS

DAVID GIL'S, Prest. C. B. IBESTER, Vice-Prest. M. LLEWELLYN, Sec. and Treas. Successors to D. GILES & CO., Ch. ttan oga, Tenn., Manufacture's of



Castings & Patterns of Every Description Made

WELD STEEL PRESSURE PIPES



CHAMPION IRON CO. KENTON, OHIO.

SPECIALTIES.—Iron Stairs and Jail Work, Builders' and Ornamental Iron Work and the only manufacturers of Malleable fron Cres.ing guaranteed against breakage.

Largest Iron Fence and Railing Works in United States.



COLUMBUS WIRE WORKS.

MANUFACTURERS OF

OFFICE RAILING, WINDOW GUARDS,

Wire Railing for Cemeteries, Lawns and Gardens. Wire Flower Stands and every description of Wire Work.

J. L. SOUTHCOMB, Proprietor, Columbus, Ohio.



rtistic Railings, ELEVATOR ENCLOSURES,

s Work, Wickets, Grill-, Wire Railings and Partitions.

Wire and Iron Work of Every Description J.E. BOLLES & CO.

DETROIT, MICH, tion MANUFAC URERS' RECO

FRED. J. MEYERS MFG. CO.

OF EVERY DESCRIPTION.

Iron and Steel JAIL WORK. WINDOW GUARDS Wire and Iron.

IRON AND BRASS WIRE COUNTER RAILINGS.

Catalogue and Estimates
Furnished on Application.

COVINGTON, KY.



SYKES IMPROVED

ast da-m-st-

ES.

ire

O.

n.

Y.

PATENT

SYKES IRON ROOFING CO., Niles, C., & Chicage, III.
Send for Circular and Price List, and mention this paper.

BERGER MANUFACTURING COMPANY, CANTON, O.



make arrangements for BOOF-ING 'till you have

It Excels all other Metal Reefs.

KANNEBERG ROOFING CO., Canton, O.

Ta: Kanneberg Pat. Latest Improved, Folded Lock Seam Roofing. MADE OF STRICTLY GENUINE STEEL, ALSO
CORRUGATED IRON (four sizes of corrugations), and
Crimped Edge Iron Roofing and Siding, Beaded Iron Siding and
Ceiling, Water-Proof Building Paper, Dry and Ready Mixed Paints,
etc. Write for Catalogues, Price-List and Samples.

Long Steel & Iron Roofing Co.

Steel | Iron Roofing Corrugated Siding and Celling, Iron Ore Paint, Cement, &c.
N. E. Cer. Illinois & Merrill Sts., Indianapelis, Ind



J. H. ELLER & CO., Canton, Ohio,

## STEEL ROOFING

CORRUGATED IRON, Crimped Edge Roofing and Siding, Beaded Siding and Ceiling, Galvanized Steel Eave Troughs, &c. Write us for prices and sample.

Address Office No. 222. AGENTS WANTED.



Waltham Emery Wheel Co. Manu-WALTHAM, MASS.

WALTHAM, MASS.

By our various processes we can guarantee a isfaction for the great st variety of work.

EMERY WHEEL MACHINERY,

EMERY, CORUNDUM, Etc.

These wheels can be bought of our agents or ordered direct.

Established' 1867.

J. L. Otis, Treas.

Wheel Co. Emery Northampton



**Premium Solid Emery** 

CORUNDUM WHEELS,

Emery Wheel Machinery. LEEDS, MASS.

20 SOUTH SANAL STREET, ONIGAGO, ILL.

NORTON EMERY WHEEL CO.



EMERY

**Emery** Wheel Machinery AND NUMEROUS SPECIALTIES.

THOS. K. CAREY & BROS.

26 Light Street, Baltimore,

Southern Agents.

The CAMBRIDGE ROOFING COMPANY,

CROWL'S PATENT STEEL ROOFING

METAL SHINGLES AND ROOFING PAINTS.

Also all Best Styles of Siding and Ceiling. Good Agents Wanted. Superior Inducements Offered.

Awarded First Medal by the New Orleans Exposition and elsewhere. Send for Samples and Catalogu

CAMBRIDGE, OHIO.

CHATTANOOGA, TENN.

IRON & STEEL ROOFING,

GLOBE STANDING SEAM.

EXCELSION V (RIMPED.

READY ROLLED CAPPED.

GLOBE IRON ROOFING &

CORRUGATED IRON1111 (OOFING. SIDING & CLIUNG.
ALL DESIRED GRUNES AND LENGTHS.
SHACK PAINTED OR OALVANIZED.
SHACK PRINTED OR OALVANIZED.
SHACK PAINTED OR OALVANIZED.
AND THE OWN AND DECORPTIVE CATALOGUE
AND THE OWN AND SHICKE. CORRUGATING CO, CHECKARO &

LATEST SIMPLEST NILES. O. CORRUGATED. AND CHEAPEST AGENTS WANTED. AND CRIMPED CAP ROOFING. SEND FOR GATALOGUE ROOFING & SIDING

IMPERIAL BRAND

# REPARED ROOFINGS TWO and

BUILDING PAPERS.

sin-sized and Waterproof Sheathings, Parchment Building Paper, Deadening Felts, Piain and Cor-rugated Carpet Linings, Imperial Asbesto-Roofing, Tarred Roofing Felts, Roofing Materials, &c. ABBESTOS SHEATHING AND BUILDING FELTS, ABBESTOS STEAM PACKING, PIPE COVERINGS, ETC. SEND FOR SAMPLE BOOK AND PRICES.

H. F. WATSON CO., Manufacturers, Erie. Pa. 407 Chamber Commerce, CHIC & GO., 114.

PATD' JAN. 14 TF - 1890

The Sims Mfg. Co. NEWARK, OHIO, The World's Favorite Ad-

justable Eave Trough.

1889

in ordering our Trough. It is always Right and made from the Hamled and Copper, in 8-foot lengths. Write for Descriptive Circulars Discounts to Jobbers.

To Architects, Builders and Owners.

Attention is called to Fire-Proof and Vermin-Proof ERAL WOOL,

As a Lining in Walls and Floors for Preventing the
EECAPE OF WARMTH AND THE BEADENING OF SOUND.

BAMPLE AND CIRCULARS FREE.

U. S. Mineral Wool Co., 9 Cortlandt Street, N. Y.

OUEEN CITY SUPPLY CO., PROPRIETORS.

Nos. 161, 163 & 165 West Pearl Street, Cincinnati, Ohio.

Factory, Machine Shop and Mill Supplies. Agent for B. F. Sturtevant Co., Blowers and Exhausts; Boston Belting Co., Rubber Goods of all kinds; Jewell Belting Co., Leather Belt; Juo. A. Reeblings' Sons, Wire Rope; Grant Corundum Wheel Co., Emery Wheels; Magnolia Metal Co., Magnolia Babbitt Metal.

Now is the time to arrange for Heating and Ventilating your Factory, Store, Church, Theatre or School by the Hot Blast System.



Write us LATEST IMPROVED SLIP JOINT EAVE JERS, ETC. O PAT'D LONGEST IN THE WORLD, GOES TOGETHER EASILY, NO SOLDER REQUIRED. BEST CONDUCTOR, HANGES.

MADE BY THE CANTON STEEL ROOFING GO..CANTON.O.

#### Eastern Lumber Markets.

[Special Cor. MANUFACTURERS' RECORD.] NEW YORK, September 22, 1891.

A slight expansion of building operations in New York, Philadelphia and some other Northern cities has stimulated busisomewhat, although the abundant supply of lumber in these markets forbids the expectation of heavy shipments from primary markets. Manufacturers of lumber in the West and in the South have been disappointed at the small volume of September business which has thus far developed. They supposed they had reason for expecting some heavy transactions, especially in the cities along the coast, but the wholesalers there have seen fit to buy what little they need in a retail way, and are endeavoring to realize on the stocks they have rather than pile up stocks for the future, which they would have to carry with the aid of banks. Selling prices have not moved one way or the other; in fact, it is impossible to shade quotations at this time unless the quality of the lumber will allow it. Buyers are buying extremely close, and all lumber selling is examined with the greatest care. Frequently diffi-culties arise because of disputes over inspection, some of which could be averted if well-established rules were more generally observed. Here in New York we are satisfied with present conditions simply because we know they cannot be improved excepting by some sudden cause stimulating demand. A careful canvass of the trade has been made by some in the trade to ascertain just about how much stocks of leading kinds of wood are, and most of who have investigated have come to the conclusion that our stocks are in a very satisfactory shape-neither or too small. Some of the too large Western white pine people are very anxious to sell good lumber for cash, and it is likely two or three large transactions will be the result of negotiations now pending. A little spruce has also arrived. A few lots of hemlock have been brought in during the week. There are also liberal offers from wholesalers of hemlock, which may be expected, but they involve cash payments or the equivalent. The shipments of yellow pine from Gulf and South Atlantic ports have kept our stocks at a maximum point. Our wholesalers do not care to hold so much pine as they did a few The conditions of the market years ago. are so well understood that the lumber can be as well kept when home as here. An examination of our business in Carolina pine shows that we have after all had a very good year. A great deal of business is still being done in both kilndried and rough; it is cheap, and can be utilized for a great number of purposes. In the hardwoods we have to note a little more activity among retailers, particularly for poplar and oak. The movement of cherry has been confined to the requirements of furniture manufacturers, whose purchases have made quite an inroad into the limited stocks here. There is very little of inferior stuff, and culls are hardly worth mentioning. A little more maple is hurried forward to keep our stocks at the required point.

Quotations for yellow pine, \$18 50 ft r random orders; car orders, \$21; heart face boards, \$20.50; common sidings, \$13; flooring, \$21; stepping, \$25; North Carolina kiln-dried, by car, from \$22 50 for No. 2 one-inch flooring to \$16.50 for No. 3; cherry, one-inch, \$85; clear cypress, \$30; quartered sawed oak, \$52 for six inches and over; one-inch white ash, \$36; one-inch popiar, ten inches and over, \$31; common one inch, \$21.50.

Do you want some second-hand cotton machinery? It is in good running order. See advertisement of Davol Mills, Fall River, Mass., on page 46, and write them for prices, terms, &c.

#### THOS. J. SHRYOCK & CO.

WHOLESALE

umber and Commission Merchants, YELLOW PINE and HARDWOOD.

Shryock's Wharf, Baltimore, Md. Correspondence Solicited.

#### E. B. HUNTING & CO.

BALTIMORE, MD. JACKSONVILLE and FERNANDINA. PLA. and SAVANNAH, GA.

WHOLESALE MERCHANTS

# Yellow Pine Lumber

Buy for cash on cars at Milis and sell delivered to all points reached by rail or water. Write Baltimore Office.

#### JESSE THOMPSON & CO. Georgia Pine Timber, RIFT FLOORING.

Delivered at any Point.
AUGUSTA, Prices Quoted. GA.

#### THE EDWIN BELL & SONS CO.

Mail Kegs, Flour and Fruit Barr Stock, also HOOP MACHINERY.

Write for prices on Hoops, Heading and Staves. Mills. Northwestern Ohio

Headquarters, YOUNGSTOWN, OHIO.

#### PETER GERLACH & CO.

MANUPACTURERS OF



## ALLIGATOR CHISEL-BIT SAWS

THE CHAMPION

Stave, Heading and Shingle Machines. les Twis and Will Rupplies. OLEVELAND. O.

#### Greer Machinery Co. KNOXVILLE, TENN.

Wholesale Automatic, Corliss and Hoisting

#### ENGINES.

Stationary and Portable

Engines and Bollers, Saw and Grist Mills, WOODWORKING MACHINERY, &C.

Glass Tube Cutter.



No. 1 cuts 5 inches, - \$2.50 | Discount No. 2 cuts 7 " - 3.00 | to Dealers SCRANTON, PA. HUNT & CONNELL, LIMITED,

SEND FOR NEW PRICES

# Coat Hat Hooks



## VAN WAGONER & WILLIAMS CO.

82 Beekman St., New York,

Catalogue of Spring Hinges, Door Springs, Wire Coat and Hat Hooks, Blind Adjusters, &c.,



The only Portable Forge with a bellows the gives an absolutely continuous blast and easily worked. No legs to break, no gear wheel belts or bearings to get out of order. Alway ready for use. No break-downs to cause delawhen used out of shop. Requires no oiling.

#### PITTSBURG PORTABLE FORGE CO., Limtd.

Manufacturers of Portable Forges, Iron Wheelbarrows, Sheet Iron Work, and Blacksmithing of all kinds.

2520-2522 Smallman Street, PITTSBURGH, PA.

# W. J. CLARK & CO., Salem, O.

Elevating & Conveying Specialties

Sole Manufacturers of the "SALEM" ELEVATOR

BUCKET, for Mill and Elevator work, Ear Corn,
Corn and Cobs, Ores, Coal, Broken Stone, &c.
Send 9 cents (atamps) for postage on Sample
Salem Bucket and Illustrated Catalogue.

#### .B.SEE MANUFACTURING CO ELEVATORS.

116 to 120 Front St., BROOKLYN, N.Y. Send for Circular.

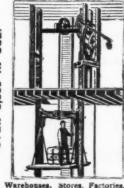
#### JAMES H. CURRAN,

Passenger and Freight Elevators,

DUMB WAITERS.

Office & Works, 132 W. Second St., CINCINNATI, O
Write for Circular.

Elevators Reissued July 25, 1876, USE Z 6,000 iğ. April

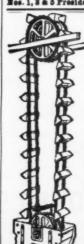


or Warehouses, Stores, Factories, c Institutions and every place where, &c. is transferred from one story to

#### JAMES BATES.

FATENTIEL,

Mos. 1, 8 & 5 President Street, BALTIMORE.



Jeffrey Mfg. Co. 121 W. State St. COLUMBUS, O.

Chicago Branch, 48 S. Canal St.

Detachable Chain Belting

#### Elevators, Conveyers, **Driving Belts**

For Handling Barrels, Boxes, Bales, Grain, Coal, Ores, &c.

Illustrated Catalogue sent on application.

Currespondence solicited.

# PORTABLE FORGES JOYCE, CRIDLAND &

J. O Joyce's Patent Lever Jacks. Compound Lever 2

SCREW JACKS,

AND BENCH VISES.

50 varieties of Lever and Screw Jacks for railroad use. Piesse sand for illustrated catalogue.

Railway Companies, Furnace Builders, Boiler Makers, Machine Shops. We manufacture all sizes and styles of



#### Richmond Iron-Paint



PAT'D SEPT 30, 1878. N2.7.707.

Damp and Imperfect Walls are also Rendered Dry by the use of this Paint and Cement.

N. T. PATE & CO., 1007 E. Cary St., Richmond, Va.

THE GREAT IMPROVEMENT IN

# ROOFING

We are now ready to supply the product of entirely new machinery and processes just completed by which we not only have greatly improved the strength and durability of our well-known ASBESTOS ROOFEING, but have also secured a degree of uniformity never before attained in any similar fabric. We offer this as the PERFECTED form of the portable Roofing which we have manufactured with continued improvements during the past thirty years, and as the most desirable Roofing for general purposes.

The important features of our recent improvements, for which patents have been allowed in this country and in Europe, are described in our new circular, which, with samples, will be sent free by mail. Our Asbestos Roofing is now in use upon Factories, Foundries, Cotton Gins, Raliroad Bridges, Cara, Steamboa's, etc., in all parts of the world. It is supplied ready for use, in rolls of 200 square feet, and weighs with Asbestos Roof Coating, ready for shipment, about 55 pounds to 100 square feet. It is adapted for steep or flat roofs in all climates, and can be readily applied by unskilled workmen.

15 There are inferior imitations of our Asbestos Roofing, purchasers are cautioned.

Samples and Descriptive Price List free by mail.

mples and Descriptive Price List free by mail

## H.W.JOHNS MANUFACTURING COMPANY,

87 MAIDEN LANE NEW YORK.

# Troy Laundry Machinery Co.

(LIMITED.)

FACTORIES: | 648 and 650 Fulton Street, Troy.

15 Warren Street, New York.



Our Line of LAUNDRY MACHINERY has all the LATEST IMPROVEMENTS and is the BEST FOR LAUNDERING all kinds of goods.

Send for Catalogue K.

fri

#### MIDDLESBOROUGH, KY.

Echoes of the Reunion-Public Schools, Water Works, Fire Department, Etc.

h.

2

gwe.

d, 0.

0.

Dry

NY.

Co.

[Special Cor. MANUFACTURERS' RECORD.] MIDDLESBOROUGH, KY., Sept. 19, 1891. Middlesborough gave herself up this week to the soldiers of the North, who came to this historic spot to fraternize with the soldiers of the South. The reunion of General Morgan's command, the 7th Division, Army of the Ohio, was a great and glorious success. It brought many visitors to the city, and it revealed to them the many changes which have taken place in this section since the time of the Rebellion, when neither railroads, telegraphic lines or any of the modern inventions of the day had been introduced into this part of the country, which had been almost considered dangerous for civilization to

It is not necessary, in a letter to an industrial paper, to speak of parades, receptions or social entertainments which were given during the week in honor of the visiting veterans. It does come, however, within the scope of every newspaper that has the interest of the country, and of the South especially, at heart, to speak of the impressions the new industrial South made upon these visitors from the North. There no doubt that the scenery around Middlesborough attracted the attention of the visitors; there is no denying the fact that visits and excursions to the Pinnacle, to the caves, and to the surrounding country were pleasant and enjoyable in the ex-But what impressed these men more than anything else was the wonderful mineral development of a country they knew so well by name and reputation, but the resources of which had never even been imagined by a single one of them.

I conversed with General Morgan and many of the soldiers who were here this week. They told me they scarcely recognized Yellow Creek valley, or even the more familiar scenes of Cumberland Gap.

In 1862 the valley in which Middlesborough is built was nothing but a vast wilderness, covered with woods and wild grass, and the mountains in the neighborhood of Cumberland Gap were shorn of all the trees, which have since become so valuable in the lumber world. These men came South doubting what they heard and read; they go away convinced of the fact that the South is awakening with tre-mendous vigor, and that the stories they have heard of her many resources exist in realty, and not on paper alone. They visited the coal and iron mines, they inspected the furnaces and the steel plant, they lingered around the tannery and viewed with much satisfaction the many other industries which were starting in this young, progressive city, and they feel that the work which has been done here in this special line is but a fair exponent and criterion of similar work which is going on throughout the whole of the South.

Many of them expressed a desire to return and to locate south of the Ohio river. They have become familiar with the country they were once prejudiced against. They feel and appreciate that the war is over, and that in the South they meet with the same American spirit of push and enterprise which for so many years characterized the North alone. They understand also that the new South to them means wealth and prosperity to themselves and all their They leave us impressed with these ideas, and there is no doubt that many will be the words of commendation they will utter when they return to their friends and relatives in other sections of the country. It is the intention of these men to hold a similar reunion at Middlesrough and Cumberland Gap annually

Middlesborough is now equipped with a first-class fire department. She has engines, hose, trucks, ladders and horses, and men who thoroughly understand the business of fighting conflagrations. This is a move in the right direction, and which should be followed by other new towns in the South. It not only guarantees protection to life and property, but it also gives the citizens a lower rate of insurance upon their goods and buildings.

The huge water works in the southeastern portion of the city are rapidly approaching completion. For some months past citizens have had the benefit of water from these works at their residences and places of business, but it will still be a nonth or two before the department will be in proper running condition to furnish all of the plants that are now building with their water supply. The capacity is now 5,000,000 gallons per diem, and I understand that this is to be increased to 10,000,000 gallons. The cost of the works completed is in the neighborhood of \$400,000.

The public schools of the city opened on Monday last, and it is gratifying to state that the number of school children enrolled is 1,326-940 whites and 386 colored. Middlesborough now has three fine public schools and four private educational institutions, the latest being that of Miss Virginia Preston Carrington, formerly of Knoxville, but a lady who is well known in Kentucky and Virginia. Miss Carrington is related to the Breckenridges, Prestone and other notable Southern families. She hopes before long to be able to establish here an academy for the education of young ladies of the better classes.

The fair at Arthur during the early days of October promises to be a brilliant success. Cheap excursion rates have been arranged with the railroad companies, and it is expected that a large crowd from Kentucky and Tennessee and parts of Virginia will be in attendance. This is the first fair of its kind to be held in this section of the country.

Mr. A. A. Arthur left to day for New York, where he goes on important business connected with the Town Co. and the American Association, Limited.

O. O. HALL.

#### Vitrified Bricks as Paving Material.

Vitrified bricks are said to make better pavements for heavy carting than asphalt, granite or any other blocks in use. In a recent article the Chicago Brickmaker gives several remarkable illustrations of their ability to stand the wear and tear of heavy traffic. Over one of these pavements in the yard of the Western Stone Co., of Chicago, 150 wagons loaded with stone pass daily. Their average weight loaded is ten tons. This pavement has been in constant use for more than three months, yet a personal examination by the editor failed to reveal a single broken brick.

The freight yard of the Chicago, Burlington & Quincy Railroad in that city is similarly paved. The number of single and double teams passing over it daily exceeds 4,000, and the aggregate weights drawn over it in a single day, from 7 A. M. to 6 P. M., was nearly 25,000,000 pounds. After more than a year's continuous service there is not one brick broken. This railroad company had tried pavements of granites, asphalt and wood without satisfactory results. All had to be removed, not alone because they could not be made serviceable in the amount of wear they gave, but, especially with granite and asphalt, they smoothed so quickly as to prevent the transaction of business in the yard. The writer says: "The great horses used by the transfer companies knew as by intuition that after they had left the city pavement on Canal street the brick would

insure them a safe footing for any effort they might be called upon to make."

clays abound in the South, and in many places vitrified brick would be the cheapest material for pavements they could

## McShane BELL Foundry



Manufacture those celebrated Bolls for Towe Clocks, Court-House Cotton Mills, Factories, &c. Prices and call logues sent free. Address H. McSHANE & CO. Baltimore, Md.

The Globe Tie IS THE BEST

ENVELOPE

For Mailing Catalogues. mbines the security of SEALED ENVELOPE, the postal rates for

with the postal rates for PRINTED MATTER. Send for samples and THE CLOBE COMPANY,

6 Warren St., N. Y. CINCINNATI, O.

# Veneering & Handle Machinery.

# The I. E. MERRIT MACHINERY CO.

# Woodworking Machinery

Veneer, Fruit Package and Cheese Box Factories, Handle, Spoke, Hoop and Turning Factories, Heading, Stave and Shingle Mills.

56, 58 & 60 Market St. LOCKPORT, N. Y.

## WOOD-WORKING MACHINERY

TO FULLY EQUIP

Planing-Mills, Sash, Door, Blind and Furniture Factories.

SHAFTING, HANGERS and PULLEYS

-ALSO,-

#### BARREL MACHINERY

(50 Varieties.)

MANUFACTURED BY-

B. & B. BOLMES,

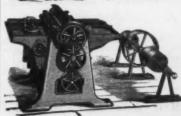
72 Chicago St.,

## **GREAVES & KLUSMAN**

180 & 182 W. Second St., Cincinnati, Ohio.



Write for Prices. It Will Pay You. 36-in. Band Saw.



## FOR THE BEST MILL

Phosphates, Clavs,

Stedman's Foundry & Mach. Wks., Aurora. Ind. THIS CUT ILLUSTRATES OUR CLASS A

Star Sight "Up-Feed" Lubricator

The Latest and Best.



The connecting dis-charge arm being at the back of oil reservoir, gives ample room on each side to get at the valves with out scorching or burning one's fingers.

It Works Admirably.

Write for Circulars.

THE WM. POWELL CO. CINCINNATI, O.



"IMPROVEMENT THE ORDER OF THE ACT

We slaim, and inspection and tries prove it, the He Durable in Alignment, Resiest Running and Most Silent. All type element in 1 seconds without solling hand for colningue. THE SHITE PRINTING TYPE WRITTER OD, STREET, R. V. U. S. A.

# THE BRADSTREET **Mercantile Agency**

WAS ESTABLISHED IN 1849.

WAS ESTABLISHED IN 1849.

Is the oldest and financially the strongest organization of its kind, working in one interest and under one management, with more capital invested in the business, and expends more money every year for the collection and dissemination of its information than any similar institution in the world. Its reports are considered in the light of a guide by both investors and those contemplating the granting of credit. In addition to a large corps of skilled employes, more than one hundred thousand correspondents contribute the result of their investigation and opinions. Subscriptions are annual, and may commence at any time the subscriber elects. Details as to prices and terms will be furnished upon application.

CHARLES F, CLARK, President. rms will be furnished upon application CHARLES F. CLARK, President.

Baltimore Office - American Building, H. KERSHAW, Supt.

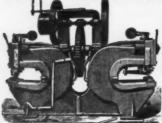
# Less Power. Less Expense.

Better Results Obtained by Using the Belden Improved



BELDEN MACHINE CO., New Haven, Conn.

#### HAMILTON, .STATTER CO. OHIO.



Double, Single, Angle-Bar, Gang, Horlzontal, Twin, Boiler, Spacing, Gate, Multiple, BELT and

STEAM-DRIVEN

Punch & Shears. Over 300 Sizes.

Power-Cushioned





C. H. DEMPWOLF & CO.

IMPROVED

FERTILIZER MIXING MACHINE YORK, PA

WALKER & ELLIOTT,

Manufacturers

ILL Fertilizer CHINERY

CORRESPONDENCE SOLICITED.

Automatic Mixers, Bone Mills, Breakers, Buhr Mills, Roller Machines,
Pulverizers, Rolling and Shaking Screens,
Elevators, Pulleys, Etc.

WILMINGTON, D

WILMINGTON, DEL.

Charleston Iron Works.

PHOSPHATE MINING AND MANIPULATING MACHINERY.

ENGINES, BOILERS AND MECHANICAL APPLIANCES IN GENERAL.

Prompt attention to repairs.

CHARLESTON IRON WORKS, CHARLESTON, S. C.

#### LIGHTS Sidewalk

CONCRETE ILLUMINATED SMOOTH SURFACE Old Sivie Bulls Eye Knob Protected.



STEAM HEATING APPARATUS

ARCHITECTURAL IRON WORK of Every Description.

T. H BROOKS & CO

CLEVELAND, OHIO.



(33)

FOR SAMPLE AND CATALOG PIERCE, BUTLER & PIERCE MFG. CO., MAIN OFFICE, SYRACUSE, N.Y NEW YORK

THOUSANDS IN ACTUAL USE NAME OF THE STATE OF THE STATE

THE STAR



to 6,000 sq. ft. Any special size made to order.

Steam or Hot Water Heating,

OR POWER.

THE FIREBOX dispenses with all brick setting, WATER TUBES and FIREHOX give best possible fire surface. Cast Iron BASE full length and width of boiler, fitted with improved SHAKING GRATE, accompanies each boiler.

Full Particulars and Prices cheerfully given.

HARRISBURG BOILER & MFG. CO., Harrisburg, Pa.

# ACHINERY WOOD AND IRON Working.

Engines, Boilers, Etc.

Supplies Generally.

LEATHER, RUBBER AND COTTON BELTING A SPECIALTY.

Write for Prices

SMITH-COURTNEY

RICHMOND, VA.

## The LLOYD BOOTH CO., Youngstown, Ohio,

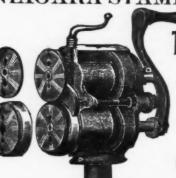
GUIDE. BAR. MUCK SHEET AND PLAT



SQUEEZERS. SHEARS, ORE MILLS ROLL LATHES. SAND AND CHILL ROLLS.

# Manufacturers of IRON AND STEEL WORKS MACHINERY.

#### NIAGARA STAMPING & TOOL CO.



Tinners' Machines & Tools,

Squaring Shears, Press Dies, &c. FOR WORKING SHEET METAL. Fruit Can Dies and Tools.

CANNERS' OUTFITS.

OFFICE AND WORKS:

Cor. Randall & Superior Sts., Buffalo, N. Y. Write for Catalogue and Price-List and mention

# PERFECTLY UNIFORM SPEED



For Dynamos and all classes of Machinery, wher run by Water-Wheels, Slow-Speed Engines, or from any General Source of Power that is doing other work

#### OUR INTERMEDIATE SPEED REGULATOR

Maintains a Perfectly Uniform Speed, no matter hose variable the driving power may be. The speed can be changed at any moment by moving a shipper over a range of 30 per cent.

Write for descriptive pamphlet.

T. M. FOOTE RECULATOR CO.

952 Exchange Building,

BOSTON, MASS.

Works-Ashland. Western Agis, CHANDLER & LITTLEFIELD, 40 Marine Bidg, Chicago.

ESTABLISHED 1832 ON PRESENT PREMISES.

PERFECT COLOPHINE THE ENGINE

Therefore **BUY OUR** OR

Perfect Oils

The above are our specialties in MACHINERY OILS, and are the best Oils for We can give you anything in the OIL LINE, any grade, at the price manufactured. the very lowest prices. Correspondence solicited.

ENGINE

WM. C. ROBINSON & SON. MANUFACTURERS AND DEALERS IN OILS.

217 South Street, Baltimore, Md.

N ly.

O.

ILS ES.
ILS,
IV.

(S,

her roe or i

s.

TE TE

for e, at

S,

# Alphabetical Index of

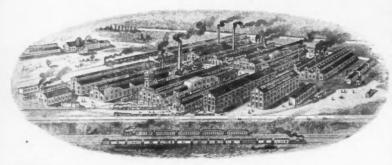
	1	LACK CLASSIFIED INDEX," SES	FAUE 3.]	
A	Contractors' Plant Mfg. Co	i	Poindexter, Parke L 37	Webster, Camp & Lane Mach. Co 6:
Adrian Brick & Tile Mach. Co 45 "A. D."	Cooper & Co., G. & C	Illinois Central Railroad 3	Dear W V & W W	Webster Manufacturing Co
"A. D." 36	opeland. E. T. & Co	Ingersoll-Sergeant Rock Drill Co.	Potts, C. & A., & Co	Weller Manufacturing Co
Allentown Fdry. & Mch. Co48, 64	Cordesman Machine Co 25	J .	Potter, H. K., & Co	Weir Frog Co. 34 Weiler Manufacturing Co
Allentown Fdry. & Mch. Co48, 64 Allfree, The J. B. Mfg. Co	Cordesman, Meyer & Co 27 Corey Car & Mfg. Co 34	Jeffrey Mfg. Co	Prentiss Tool & Supply Co 40	Western maryland Kallroad SS
American Casualty Insurance &	Corliss Steam Engine Co 32	Jenking Bros to w	Pulsometer Steam Prime Co 48	Wetherill, Robt., & Co
Security Co 58	Corporation Book Co	Jenkins & Lingle 60		Wheeling & Lake Brie Ry
American Electric Elevator Co 75	Corporation Book Co	Jenks, James	Queen & Crescent Route 58	Whitman & Barnes Manufacturing Co 64
American Injector Co 47 American Ore Machinery Co 61	Covert Mfg. Co	Johns, H. W. Mig. Co. 70 Johnson & Field	Queen City Supply Co 69	
American Pipe Mfg. Co 43 American Screw Co 76	Crandall Packing Co			Wier & Wilson
American Supply Co	Crompton Loom Works 45 Crescent Manufacturing Co 50	Joyce, Cridland & Co 70	Barley Wandson C.	Willer Manufacturing Co
American Well Works	Crilly, Jno. B	Joyce, N. K	Rand Drill Co 60	Williams Bros. 46 Williams, Jno. L., & Sons
Andrews, A. H., & Co 36	Cronk danger Co	K	Rarig Co., Alex. K	Williamsport Machine Co
Arnold, D. J. C 44	Curran, Jas. H	Kanneberg Roofing Co 69	Raymond, C. W., & Co 44	Wilson & Huggins.
Arnold, O. B		Keeler, E., Co	Perced Printing Hones	Wilson & Huggins 41 Winston-Salem, N. C. 22, 21
Ashton Valve Co 76	D	Levelone Elec. Co 78	Rice, W. P 51	1 587-17 Th. 3 587 Ch.
Atkins & Co., E. C	Dake Eng. Mfg. Co 32 Davol Mill	Kilbourne & Jacobs Mfg. Co 76	Richards, M. V 51	Woil, Fred W. Co. 43 Worthington, Henry R. 4 Woodbridge & Turner Engineering Co. 42 Woods Machine Co. S. A. 55 Wright & Adams Co. 33 Wright & Adams Co. 33
Ault & Wiborg Co	Day, J. H. & Co 48	Kimball, C. B	Richmond Locomotive & Ma-	Woods Machine Co. S. A. Woods Machine Co. S. A.
Austin, F. C., Mfg. Co 34	Dean Bros, Steam Pump Works. 48	and the case of th	chine Works 62	Wright & Adams Co
В	Deane Steam Pump Co 4 De Loach Mill Mfg. Co	L	Robertson, John C	Wyckoff, A. & Son 76
Babcock & Wilcox Co 33	Deming Co	Laidlaw & Dunn Co 48	Polymann & Ove	X
Rabcock, H. H. Co 50	Dempwolf, C. H., & Co	Landreth, Olin H 43 Lathe & Morse Tool Co 63	Rochester Machine Tool works. 50	X. Y. Z 36
Baldwin Locomotive Wks 64	Dewey, F. P 43	Lawrence Machine Co 15	Rogers, D. D	* Not in this issue.
Mall Engine Co		Lean, D. R	and the second s	
Ball & Wood Co	Dixon, Jos., Crucible Co	Ledoux & Co	Rowley & Hermance 97	
Baltimore Engraving Co 59 Baltimore Stor. & Light, Co 58	Dolph, A. M., Co 76	Leffel, Jas., & Co	Rue Manufacturing Co	[CONTINUED PROM PAGE 3.]
Baragwanath, Wm. & Son 64 Barnes, W. F. & John, Co 60	Draper, Geo. & Sons	Lexington, Va	Ryan, Jno. Co	Stand-Pipe.   Union Foundry & Ma-
Barney Ventilating Fan Co 74	Diaston, H., & Sons. 28 Dixon, Jos., Crucible Co. 66 Dolph, A. M., Co. 76 Dopp, H. Wm., & Son. 4 Draper, Geo., & Sons. 4 Drew, Baldwin & Co. 63 Dufur & Co. 64 Dunning, W. D. 42	Lincoln Iron Works 61		J. C. McNeil Co. Sharon Boiler Wks, Lim Cleveland Axle Manu-
Barnum, E. T 64	Dunning, W. D 43	Link Belt Engineering Co 60 Linville, N. C	Saabve, Uscar	facturing Co
Barrum, E. T	Dutton, C. H. & Co		Salem Wire Nail Co 68	Steamers.
Bartlett, A. F. & Co	E	Lockwood, Greene & Co 43 Lodge & Davis Mach. Tool Co 46	Sanuey Lumber Co	Balto. Stor. & Light. Co. Clocks.
Bass Foundry & Machine Wks 32		Logan City, Va	Santley Lumber Co	Stool Rails. A. Nanz & Co.
Bates, Jas	Eagle Boiler Works	Long & Allstatter Co	Savernake, Va.	
Bay Line 58	Economy Mchy, Co 46		Savernake, Va54, 55 Schuyler Elec. Co74	
Belden Machine Co 71	Edbrooke, W. J	Lowell Machine Shop		Penna. Steel. Co.
Belmont Iron Works 64	Edison General Electric Co 74	Ludlow Valve Mfg. Co 29	Seyfert's Sons, L. F 46	Textile Machin'ry Water Filters.
Bell, The Edwin & Sons Co 70 Bement, Miles & Co	Edmonds, Elias 37	M	Sharon Boiler Works	and Supplies. J. A. Bowden & Co.
Berger Mfg. Co 69	Edwards Co., M. L	MacLeod, John	Shimer, Samuel. J	O. B. Arnold. Water Motors.
Berlin Iron Bridge Co 76	Egan Co., The	MacLeod, John	Shipman Engite Co 33	Davol Mill. Bridesburg Mach. Wks.
Berryman, Jas * Bertolette, Chester, & Co 46	Elkton, Va	Main Belting Co	Shryock, Thos. J., & Co 70 Shultz Belting Co	Lowell Machine Shop. Water Wheels,
Billings & Spencer Co 63	Elam, Rev. P. R	Males, A. S., & Co 46	Silver Manufacturing Co 50	James Smith & Co. Nye & Tredick.  Allentown Foundry & Machine Co.
Bischoff & Co., Fred. J 50	Empire Paint & Roofing Co	Mariner & Hoskins		American Supply Co. R. T. Coneland & Co.
Bixby, W. H 37	Employers' Liability Assurance Corporation, (Limited) 4	Martin, H., Brick Mach. Mfg. Co. 44	Simpkin & Hillyer	Crompton Loom WES De Loach Mill Mig. Co.
Biakeslee Mfg. Co	Engineering Magazine 58		Sinclair & Leavenworth	Geo. Draper & Sons.   Ins. Leffel & Co.
Bolles & Co., J. E 68	Erie Railway	Mason Regulator Co		Whitinsville Spinning   Stilwell&Bierce Mfr. Co.
Boomer& Boschert Press Co. The 42		Matthews, Thos. M	Smith-Courtney Co	Ring Co. Geo. P. Clark.
Boone Lumber Co	F	McGill, R.F	Smith Fremier Typewriter Co 71	Well Tools.
Bowden, J. A. & Co 64	Farrell & Rempe 57	MC1+0W80, 100, M., CO 40	Smith, S. Morgan 50	Williams Bros.
Bownan, Walker, Ph. D	Farquhar, A. B. Co	McIlwaine, Nicholas & Dafter 43 McLanaban & Stone 60	Smith & Vaile Co	American Wall Works
Bradford Mill Co 67	Fay, W. H., Manilla Co 67	McNeil, J. C., & Co	Southern Information Bureau. 37	Tools (Machine & Oil Well Supply Co.
Bradley & Co	Felkel, F	McNeil, J. C., & Co		Parade and Melli Ca
Brewer, H. & Co 44	Fitts. 1. H 80	Mengel, John G. & Co 58	Southern Real Estate Directory. 51 Spiral Weld Tube Co	Rement Miles & Co WILGOIDAFFOWB.
Brideshurg Mch Works co	Fitzsimons & Co 20	Merchant & Co	Standard Steel Works	L. S. Starrett. Sebastian-May Co. Pitts. Port. Forge Co. Cleveland Wheelbar'w
Bristol's Mig. Co	Fletcher & Thomas	Merritt, I. E., Machinery Co 71 Messinger Valve Co 31 May F. H. C.	Star Drilling Machine Co 48	I. I. McCabe. & Mfg. Co.
Brothers de Saussure & Waters. 43	Foos Míg. Co* Foote, T. M., Regulator Co	Mey, F. H. C	Starrett, L.S 50 Steam Stone Cutter Co 61	Penna. Machine Co.  M. L. Edwards Co.  Kilbourn & Jacobs Mfg.  Co.
Bruns, L. E	Foresith S. C. Machine Co 72	Middendorf Oliver & Co 68	Stearns Manufacturing Co 31 Stedman's Fdy. & Mch. Wks 71	Glant Key Seater Co. G. L. Stuebner & Co.
Brush Biectric Co 75	Prank & Co	Middlesporough, Kv	Stedman's Fdy. & Mch. Wks 71	Billings & Spencer Co. Cincin. Mil'g Mach. Co. Wind Engines.
Buckeye Engine Co 22	Frey-Sheckler Co	Miller, Robert 43 Miner & Peck Mfg. Co 63	Steel Rail Supply Co	Covel Mfg. Co. Mast, Foos & Co.
Buffalo Scale Co	Freese, E. M. & Co	Minneapolis, Va 53	Stewart, A 37	Hart Mfg. Co. American Well Wks.
Buffalo Steam Pump Co 48	Frick Co	Minnigerode, Wm	Stilwell & Bierce Mfg. Co 49 Stow Flexible Shaft Co. (Lmtd) 64	Belden Mch. Co. Van Winkle Gin & Mach. Co.
Bullock Bellows Co	Frontier Mfg. Co	Moltz, Jerome	Stow Manufacturing Co 64	Co To Sarth Idean Salah Co
Buenham Bros	Fuller W M It	"Money Wants" 36	Stuebner, G. L., & Co 64 Sturtevant, B. F. Co 49	Cleveland Tw. Drill Co. Lathe & Morre Tool Co. Barbed Wire, &c.
Bushnell Co., G. H	"Furnace"	Moltz, Jerome	Sturtevant Mill Co 61	R. Harrington Son & Co. Cooper, Hewitt & Co.
Byram & Co 50		Morris Machine Works 49	Swaintz, A. W	Lodge & Davis Machine Williamsp't W. Rope Co. Ludlow Saylor Wire Co
C		Morse, Williams & Co 3	Sykes Iron Roofing Co 69	Prentiss Tl. & Sup. Co.
TO SECOND TO SEC	Gambrill, C. A., Mfg. Co 59 Gandy Belting Co 66	Mosby, S. B. & Co 43	T	W. F. & Jno. Barnes Co. H. L. Shepard.
Culdwell H W & Son 67	Garlock Packing Co 76	Mudge Process Fruit Packing Co. 51 Murphy & Co. J	Talbett & Sons	Pancoast & Maule. J. E. Bolles & Co.
Calhoun, W. A	Gates Iron Works 60 Gay, Louis W 74	Murray, Jas., & Sou 51	Tampa Phosphate Co	Towns. H. Balderston & Son. E. T. Barnum.
		N	Tampa Phosphate Co	and the state of t
Campbell Cotton Compress Co 37	Giant Key Seater Co 67	Nanz, A. & Co 75	Taylor Mfg. Co	N. Wilkesboro, N. C. Dufar & Co.
Canton Steam Pump Co 34 Canton Steel Roofing Co 69	Glamorgan Co., The 68	Mashville Rapid Tanning & Belt Manufacturing Co	Thompson, J., & Co 70	Linville, N. C.
Capital 36	Glen Cove Machine Co., (Lim.) 28	National Tube Works Co 20	Thomson-Houston Electric Co 74 Thornburgh & Glessner 47	Elkton, Va. Lexington, Va.  Selem Wire Nail Co.
	Globe Co 71	N. N. & M. V. Ry	Tifft, Geo. W. Sons & Co 30 Tod, Wm., & Co 30	Norfolk, Va.
Cardwell Machine Co 45	Globe Machine Co 31	Neracher Sprinkler Co 3 New Castle, Va 18	Todd Pulley & Shafting Wks 20	Winston-Salem, N. C. Machinery
Carlisle Mfg. Co	Goodell & Waters	Newport News, Va19, 24 New York Machinery Depot46	Todd Pulley & Shafting Wks 29 Trenton Iron Co	Logan City, Va. Greer Machinery Co.
Case Manufacturing Co	Granam, J. S., & Co	New York Safety Steam Power Co. 30	Trevor Mfg. Co	Front Royal & River- Battle Creek Machy. Co
Central Iron & Steel Co	Gray, Arthur F 43	Niagara Stamping & Tool Co 72 Nicholson File Co 76	Tudor Boiler Mig. Co \$3	ton, Va. Savernake, Va. U. S. Machine Co.
Chamberlin Mfg. Co 64	Greaves & Klusman 71	Niles Iron & Steel Roofing Co 60	U	H. R. Smith Mach Co
Champion Iron Co		Nordyke & Marmon Co		Minneapolis, Va. Middlesborough, Ky.  Smith-Courtney Co. Penna. Machine Co. Frank & Co.
Champion Iron Co	н	Norfolk, Va	U. S. Machine Co	Frank & Co.
Charleston Iron Works	Hackney Hammer Co 03	North Wilkesboro, N. C 16 1	O. O. Millerai Wool Co 69	Turnbuckles. Victor Mfg. Co. Globe Machine Co.
Chestoraka Palalana Ca	Haines, Jones & Cadbury Co 68	Northampton Emery Wheel Co 60	V	Central from & Steel Co. Greaves & Klusman.
Chesapeake Belting Co		Norton Emery Wheel Co 69 Nye & Tredick	Valk & Murdoch Iron Works 33	Valves. Robt. Easton. Cordesman Mach. Co.
Chicago Raw Hide Mfg. Co 66	Harrington & King Perforat. Co. 29	O O	Valley Pump Co 30	Ashton Valve Co.  Messinger Valve Co.  E. & B. Holmes.
Circinnati Corrugating Co 45 E	Hanson, van winkte &	And the second of the second o	Valley Railway 58	Wm. Powell Co. Peter Gerlach & Co.
Cincinnati Milling Machine Co. 50	Harris, T. W 43	Ohio Pulley & Machine Co * Oil Well Supply Co	Van Dugen & Tift	Mason Regulator Co. I. E. Merritt Mchy
	Harrison Safety Boiler Works * Hartford Steam Boiler Inspection	Otto Gas Engine Works 4		Ludlow Valve Mfg. Co. C. B. Rogers & Co.
W. J. C. C. C 70	& Insurance Co 59	P	Van Wie, Irvin	Cordesman Moves & Co
Ceveland & Hardwick 64 1	fart Mfg. Co 63	Page Belting Co	Van Wie, Irvin	Veneer Cutting Rowley & Hermance. Machines. I. S. Graham & Co.
Usveland & Canton R. R. Co	Jerenles Iron Works 42	Paine, Chas., & Sons	Victor Manufacturing Co	Glen Cove Machine Co
ply Co	Heine Safety Boller Co	Palmer, Cunningham & Co. (Lim.)	Vulcan Iron Works Co 34	(See Minoriting Ma. Trevor Mfg. Co. Coe & Wilkes.
Cleveland Twist Drill Co	Ill, Wm. E. & Co 28	Pate. N. T. & Co 20	Vulcan Road Machine Co 34	Ventiletone S.C. Forseith Mch. Co
Caveland Wheelb'w & Mig. Co., 34   H	Ioftstaetter, J. J.	Penfeld I W & Son	W	Fans, &c. Williamsport Mch. Co Saml. J. Shimer. Goodell & Waters.
Wilkes + I is	Talt Mig Co 70	lenna Machine Co Limited 46	Waldron & Sprout 68	Huyett & Smith Manu- Goodell & Waters.
Colling & Machey Machry Co., Limited 47	Iolton Iron Roofing Co 69 I Ioopes & Townsend 63 I	Pennsylvania Steel Co	Walker & Elliott	facturing Co.  B. F. Sturtevant Co.  Barney Vent. Fan Co.  H. L. Shepard.
		hiladelphia Engineering Wks 30	Walker Mfg. Co	Geo. P. Clark.  Josiah Ross.
	Toppie, G. E 37			Geo. P. Clark. Josiah Ross.
Calumbus Iron Works Co 67	loward Hydranlic Cement Co 57   P	ledmont Air Line 59		
Wire Works	lumphrey, P. C	ierce, Butler & Pierce Mig. Co., 72	Watkins, P. M.	Wagon Builders' Machy, and Supplies.  Wrenches, &c. Billian & Spencer Ca.
	unting, E. B. & Co 70   P	ittsburgh Port. Forge Co., Ltd. 70		
Conselly, B. A	nyett & Smith Mfg. Co 69 P	Ince, George 45	Watson & Stillman, 49 1 1	M. L. Edwards Co.   Cluster Person & Ten Da
	The second second		THE RESERVE AS A SECOND	

labelica	
Coatractors' Plant Mfg. Co	00 III
D	I II I
Doake Eng. Mfg. Co	
E 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	The state of the s
E  Sagle Boller Works 33  aston, Robt 28  conomy Mchy. Co 46  dibrooke, W. J. 37  ddy, Chas. G. 51  dison General Electric Co. 74  dimonds, Elias. 37  dayards Co., M. 1. 29  gan Co., The. 29  Inret-Warren Mfg. Co. 27  lam, Rev. P. R. 46  kton, Va. 20  liter, J. H. & Co. 60  mpire Paint & Roofing Co. mployers' Liability Assurance  Corporation. (Limited). 4  ngineering Magazine. 58  rie Railway. 58  step, F. A. 46	M M M M M M M M M
arrell & Rempe 57 arquhar, A. B. Co 30 ava, Naeff & Co 43 ay, W. H., Manilla Co, 67 elikel, F. 43 sher, S. J. 45 tts, J. H 50 tzsimona & Co. 29 etcher & Thomas 42 oley, John T 50 sos Mig. Co 20 sorte, T. M., Regulator Co 72 srasith, S. C., Machine Co 31 ank & Co 0. 42 ey-Sheckler Co. 42 ey-Sheckler Co. 44 ick Co. 30 siabee Lucop Mill Co 60 outier Mig. Co 64 out Royal-Riverton, Va 21 iller, W. M. Jr 50 urnace* 46 ilton Boiler Works 64	MMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMM
mbrill, C. A., Mfg. Co	Mo Mu Mu Mu
mbrill, C. A., Míg. Co	Na Na Na Na Na Na Na Na Na Na Na Na Na N
ckney Hammer Co	Non Non Non
rrington, B., Sou & Co	Ohio
rrison Safety Boiler Works rtford Steam Boiler Inspection Insurance Co	Otto
kiney Hammer Co	Page Pain Pane Pane Peni Peni Peni Peni Peni Peni Peni Pe

	[FOR "CLASSIFIED INDEX," SE	E P
	Illinois Central Railroad 3	8
	Ingersoll-Sergeant Rock Drill Co.	2
	Jeffrey Mfg. Co	6 6 6 7 7 7 0 7
	K Kanneberg Roofing Co 6	
	Kanneberg Roofing Co. 6   Keeler, E., Co. 6   Keeler, E., Co. 6   Kells & Sons.   Keystone Elec. Co. 7   Kilbourne & Jacobs Mfg. Co. 7   Kilbourne & Jacobs Mfg. Co. 7   Kimball, C. B. 4   Kaoxville Car Wheel Co. 3	4 5 6 6
	Laidiaw & Dunn Co	8
	Laldiaw & Dunn Co	3 3 5 5 6 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
	Lockwood, Greene & Co	
	Logan City, Va	
	MacLeod, John 43	
	Maddox Wire Belting Co	
	Matthews, Thos. M	10101010101010
	McNeil, J. C., & Co	50 50 50 50 50 50 50 50
	Messinger Valve Co. 31 Mey, F, H.C. • Meyers, Fred. J., Mfg. Co. 68 Middendorf, Oliver & Co. 37 Middlesborough, Ky. 17 Miller, Robert. 43	200000000000
	Minneapolis, Va. 53 Minnigerode, Wus. 40 Moltz, Jacob J. 28 Moltz, Jerome 28 "Money Wants" 36 Moore, Enos L 24	000000000000000000000000000000000000000
1	Matthews, Thos. M	5555
of Section	Murray, Jas., & Son	TTTT
1	Nanz, A. & Co       75         Nashville Rapid Tanning & Belt       66         Manufacturing Co       66         National Tube Works Co       29         N. N. & M. V. Ry       58         Neracher Sprinkler Co       3	TTTT
ľ	New York Machinery Depot 46	TTTTTT
	New York Safety Steam Power Co. 30 Niagara Stamping & Tool Co. 32 Niagara Stamping & Tool Co. 32 Nicholson File Co. 69 Nordyke & Marmon Co. 69 Nordyke & Marmon Co. 4 Norfolk & Western Railroad. 58 Norfolk Va. 14 North American Metaline Co. 31 North Wilkesboro, N. C. 16 North Wilkesboro, N. C. 69 Norton Emery Wheel Co. 60 Norton	Ui U.
	Norton Emery Wheel Co 69 Nye & Tredick	Vi
	Ohio Pulley & Machine Co * bii Well Supply Co * bito Gas Engine Works 4	VIV
	age Belting Co	Va Va
1	age Belting Co	Vi Vu Vu
	enna, Machine Co., Limited 46 ennsylvania Steel Co	WIWW

PAGE 2.]	
Poindexter, Parke L	*********
Queen & Crescent Route	100
Racine Hardware Co.	X X X X X X X X X X X X X X X X X X X
	S
Saabye, Oscar	BB B C T OOD B LL IN A C C G G W G St T B B B C C C C C H I B B C C C C C C C C C C C C C C C C C
Sword, P. L., & Son	Pro
Thomson-Houston Electric Co. 74   Thomson-Houston Electric Co. 74   Thift, Geo. W. Sons & Co. 30   Tod. Wm., & Co. 30   Tod. Wm., & Co. 30   Tod. Palley & Shafting Wks. 29   Trenton Iron Co. 62   Trevor Mfg. Co. 27   Troy Laundry Mcby. Co. 70   Tador Boiles Mfg. Co. 3	Au N. Lin Ell Le No Ne Pro
Union Foundry & Machine Wks. 44 U. S. Machine Co	Lar Mir Mir
An Duzen Gas & Gaso. Eng. Co. 50 An Duzen Gas & Gaso. Eng. Co. 50 An Duzen & Tift. 49 An Noorden, R. & Co. 50 An Wagoner & Williams Co. 70 An Williams Co. 70 An Williams Co. 70 An Williams Co. 45 Ann Winkle Gin & Mchy. Co. 45 Arn & Varn. 67 Arictor Manufacturing Co. 28 Valcan Foo Works Co. 34 Vulcan Food Machine Co. 34	Ash Mer Wn Mar Jen Luc V
Valker Mfg. Co	Huy fa B. F Barn Geo L. V

XTA	ertisei	ממ
V		0.
	Wahater Camp & Lane	Wash Co 6.
50	Webster Manufacturin	Mach. Co 61 g Co. 34 Co. 34 Co. 37 Co. 38 Co. 39 Co. 30 Co. 30 Co. 30 Co. 30 Co
63	Weir Frog Co	Ca 34
100000 91	Wells Machine Works.	
e Co. 74	Westinghouse Machine	CB 32
45	Wetherlll, Robt., & Co	2
	Whitingville Spinning	Ring Co
***** 55	Whitman & Barnes Ma	nulacturing Co 64
69	Whitou, D. E., Machin	e Co a
	Willer Manufacturing	Co
60	Williams Ino. L. & So	ms 48
30	Williamsport Machine	Co
44	Wilson & Huggins	PE CO
36	Winston-Salem, N. C.	22, 21
51	Wolf, Fred W. Co	
57	Woodbridge & Turner	Engineering Co
Ma-	Woods Machine Co., S.	A 28
**** 37	Wright & Adams Co	Co
72		X
rks 50	X. Y. Z	**************** **** 36
43	* Not in this issue.	
. Co. 34		PROM PAGE 2.]
59		
01		Union Foundry & Ma- chine Works.
	Sharon Boiler Wks, Liu	Cleveland Axle Manu-
68	Steamers.	facturing Co.
43	Bay Line Steamers.	Watchman's Clocks.
64		A. Nanz & Co.
63	Steel Rails,	Water Closet.
74	and Supplies.)	Haines, Jones & Cad- bury Co.
70	Penna. Steel. Co.	Water Elle
46	Textile Machin'ry and Supplies.	J. A. Bowden & Co.
49		Water Motors,
33	O. B. Arnold. Davol Mill. Bridesburg Mach. Wks.	
66		Water Wheels,
50	James Smith & Co. Nye & Tredick. American Supply Co. Crompton Loom Wks	Allentown Foundry &
*** 47	American Supply Co.	Machine Co. E. T. Copeland & Co.
69	Crompton Loom Wks	B. T. Copeland & Co. De Loach Mill Mig. Co. Burnham Bros.
30	Globe Machine Works Geo. Draper & Sons. Whitinsville Spinning	Jas. Leffel & Co. Stilwell&Bierce Mfg.Co
72	Ring Co.	Stilwell&Bierce Mfg.Co S. Morgan Smith.
3	Ring Co. Geo. P. Clark.	Well Tools.
50	Tires.	Williams Bros
48	Standard Steel Works.	Star Drilling Mach. Co.
37	Tools (Machine &	
Ty., 51	Hand.) Bradford Mill Co.	Deming Co.
ry. 51 68	Bradford Mill Co. Bement, Miles & Co.	Wheelbarrows.
«	L. S. Starrett. Sebastian-May Co.	Pitts. Port. Forge Co. Cleveland Wheelbar'w & Mfg. Co.
48	J. J. McCabe. Penna. Machine Co. M. L. Edwards Co.	& Mfg. Co. Kilbourn & Jacobs Mfg.
61	M. L. Edwards Co.	Co. G. L. Stuebner & Co.
71	Giant Key Seater Co. Billings & Spencer Co. Cincin. Mil'g Mach. Co. Covel Mig. Co. Hart Mig. Co. Belden Mch. Co. Stow Flevible Shaft Co.	
46	Cincin. Mil'g Mach. Co.	Wind Engines. Mast, Foos & Co.
37	Hart Mfg. Co.	American Well Wks.
1) 64	Stow Flexible Shaft Co.	Van Winkle Gin & Mach. Co.
64	D. E. Whiton Mch. Co.	
64	Stow Flexible Shaft Co. D. E. Whiton Mch. Co. Cleveland Tw. Drill Co. Lathe & Morse Tool Co. E. Harrington Son, & Co. Lodge & Davis Machine Tool Co. Prenting TI & Sup. Co.	Wire, Wire Rope, Barbed Wire, &c.
61	E. Harrington Son,&Co.	Cooper, Hewitt & Co.
44	Tool Co.	Williamsp't W.Rope Co. Ludlow Saylor Wire Co
69	Prentias Tl. & Sup. Co. W. F. & Jno. Barnes Co. H. L. Shepard. Pancoast & Maule.	Wire Goods.
31	H. L. Shepard.	Columbus Wire Works. J. E. Bolles & Co.
.36, 37		H. Balderston & Son.
64	Towns.	H. Balderston & Son. E. T. Barnum, Fred. J. Meyers Mig.Co. Dufur & Co. Ludlow Savier Wire Co.
32	Augusta, Ga. N. Wilkesboro, N. C.	Dufur & Co.
70	Linville, N. C.	manual ampires state co
0 74	N. Wilkesboro, N. C. Linville, N. C. Elkton, Va. Lexington, Va.	Wire Nails.
30	Norfolk, Va. Newport News, Va.	Salem Wire Nail Co.
30	Winston-Salem, N. C.	Wood-Working Machinery.
62	Lexington, Va. Lexington, Va. Norfolk, Va. Newport News, Va. Winston-Salem, N. C. Logan City, Va. New Castle, Va. Pront Royal & River-	Greer Machinery Co. Battle Creek Machy. Co
70	Front Royal & River- ton, Va.	Jacob J. Molts.
33	Savernake, Va.	Jacob J. Molts. U. S. Machine Co. H. B. Smith Mach. Co.
	Savernake, Va. Lawrenceburg, Tenn. Minneapolis, Va.	Smith-Courtney Co. Penna. Machine Co. Frank & Co. Victor Mig. Co. Globe Machine Co.
ES. 44	Minneapolis, Va. Middlesborough, Ky.	Frank & Co.
69	Turnbuckles.	Victor Mfg. Co.
	Control Iron & Steel Co	The machine Co.



# Edison General Electric Co.

COMPLETE STOCK OF

DOUBLE-BRACE, SELF-OILING, ADJUSTABLE

BALL AND SOCKET HANGERS.

PILLOW BLOCKS, POST HANGERS, ETC.

THE EDISON PATENT COMPRESSION COUPLING.

WE ARE IN A POSITION TO FILL ALL ORDERS IMMEDIATELY.

ADDRESS

EDISON GENERAL ELECTRIC COMPANY,

SCHENECTADY, N. Y.

# "Facts are Stubborn Things."

But the fact still remains that the THOMSON-HOUSTON SYSTEM OF ELECTRIC ARC LIGHTING has more Points of Superiority than any other System before the public to-day. More than TWENTY-FIVE PER CENT, of the ARC LAMPS used in the United States are of THOMSON-HOUSTON manufacture, What better Proof can be offered of the Merits of the System. Send for Catalogue No. 102.

# THOMSON-HOUSTON ELECTRIC CO.

620 Atlantic Avenue, Boston Mass. 148 Michigan Avenue, Chicago, II. 215 W. Fourth Street, Cincinnati O 403-405 S bley St. St. Paul, Minn.

German National Bank Building. - PITTSBURG, PA.

TRADERS' BANK BUILDING. - - ATLANTA, QA.

## The Barney Compound Ventilating Wheel



is the Most POWERFUL and Efficacious
Wheel in the World.

For DRYING, HEAT-

STEAM, GAS, ODORS OF DUST, is not approach ed by competition.

When applied under our direction we guarantee it to give satisfaction or make no charge. We have had



BARNEY VENTILATING FAN CO. 70 Pearl Street, BOSTON, MASS.

LOUIS W. CAY, 34 and 36 Washington Street.

# Engineers' and Plumbers' Supplies.

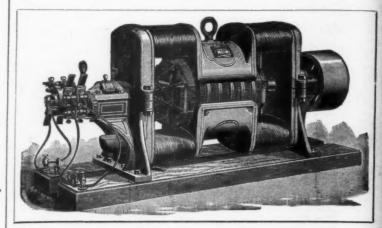
Wrought Iron Pipe, Brass Goods, Cast and Malleable Fittings, Boller Tubes, Rivets, Bar Iron, Cotton, Rubber and Leather Beiting. Agents for Gutta Percha & Rubber Mfg. Co., Scott's Patent Gate Valve, Dannemora Teol Steel, Speace Hot-Water Heater. Write for Prices.

BUY THE

# Schuyler Apparatus

IF YOU WANT

The Best Arc Lighting System.



Office and Factory:

MIDDLETOWN, CONN.

## The CARD ELECTRIC MOTOR & DYNAMO CO.

MANUFACTURERS OF

CINCINNATI, OHIO.

# Electric Motors Dynamos

DVNAMOS from 20 to 356 Lights. ARC or INCANDES-CENT MOTORS from ½ to 30 Horse Power. MOTORS for the Arc

MOTORS for the Arc Circuit a Speciaty. These Motors have the Highest Efficiency, Low Speed and Self-Oiling Bearings. AUTOMATIC SIMPLE, DURA-

Corresponder Solicited.



ectrical Supply & Construction Co., 65 Oliver St. Chicago, Thos L. Johnson Co., 312 Dearborn St. Milwaukee, Henry Ramien, 641 43 St. Minneapolis, J. M. Lennon, 22 Loam & Trust Building, St. Louis, Stagf Electrical Engineering Co., 1166 Pine St. Montgomery, Ala., W. F. Murphy. Detroit, Mich., Mich. igan Elec. Co., 212 & 214 Griswold St. Grisw

Arc and Incandescent Electric Lights.

Water Works, Motors Illuminating and Fuel Gases.

# L. N. COX,

16 Fifth Street, S. E.

WASHINGTON, D. C.

Correspondence Solicited. Plans, Specifications, Estimates, &c., cheerfully furnished.

# The GRINNELL AUTOMATIC SPRINKLER

Recently Modified. Especially Constructed to Resist the Effects of Adhesive Corresion or Sediment, both Inside and Outside the Sprinkler.

PROVIDENCE STEAM & QAS PIPE CO., Providence, R. I.

BOSTON OFFICE, 173 Devonshire Street.

CHICAGO OFFICE, 115 Monroe Street.

AUTOMATIC FIRE ALARM & EXTINGUISHER CO. (Limited),
ALS BROADWAY, NEW YORK.

PHILADELPHIA OFFICE 49 S. Fourth Street

# The Brush Electric Co.

CLEVELAND, OHIO.

The Best and Most Complete Systems of ARC ELECTRIC LIGHTING for Central Stations, Etc. INCANDESCENT ELECTRIC LIGHTING.

S

0.

S

12

St

ALTERNATING CURRENT or Long Distance Lighting, ELECTRICAL POWER TRANSMISSION and DISTRIBUTION.

FUNDAMENTAL PATENTS ALREADY SUSTAINED BY U. S. COURTS.

The Short Electric Railway Co.

CONTRACTORS FOR ELECTRIC RAILWAYS ON THE SHORT SYSTEMS

AND GENERAL RAILWAY AGENTS FOR

THE BRUSH ELECTRIC CO.

OFFICE AND WORKS:

CLEVELAND, OHIO.

# HEISLER SYSTEM Long Distance Series Incandescent Electric Lighting.

UNEQUALLED FOR DISTRIBUTION OVER WIDE AREAS.



GENERAL ILLUMINATION FROM CENTRAL STATIONS.

Plant may be located where power can be secured cheapest, even if miles distant from the lighting. Safety, Reliability, and Financial Success fully demonstrated. Plan of Wiring the Simplest, Cheapest and most Efficient. Strictly Series. Noted for the Brilliancy and Beauty of the Light. Lamps, 10 to 100 Candle Power; Long Life without Blackening. Dynamo Self-contained and perfectly Automatic.

# Heisler Electric Light Company,

Drexel Building, PHILADELPHIA, PA.

the Highest Distinction—a Gold Medal—by the International Jury at the Universal Exposition, Paris, 1889."

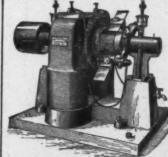
Correspondence Solloited.

CINCINNATI

ELECTRIC ELEVATOR CO

ELEVATOR MOTORS.

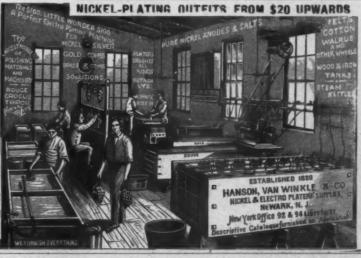
ME AMERICAN ELECTRIC ELEVATOR CO., 15 Cortlandt Street, New York.



Special Reversible Elevator Motors.

Also AUTOMATIC MOTORS for Church Organs.

Office, Corner Fourteenth and State Streets, ERIE PA.





Nicholson American

Extra (XF) Fine

# Nicholson File Co.

WORKS AT PROVIDENCE, R. I., and PAWTUCKET, R. I. OFFICE AND ADDRESS, PROVIDENCE, R. I.

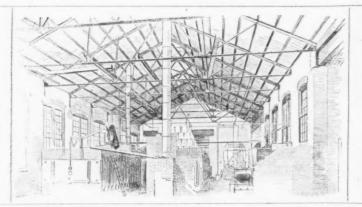
# Berlin Iron Bridge Co.

- AGENCIES : -

S. W. BOWLES, JR., Western Manager, 556 ROOKERY BUILDING, CHICAGO, ILL. W. E. STEARNS, 318 ODD FELLOWS' BUILDIN St. Louis, Mo.

#### THE FOLLOWING IS SOME OF THE WORK WE HAVE FURNISHED:

Machine Shop, Boiler Shop, Bending Shed and Ship Shed for the Newport News Ship Building & Bry Dock Co., at Newport News, Va. Puddle Mill, Richiand Iron Co., Richlands, Va. Machine Shop, The Link Belt Engineering Co., Nicetown, Pa. Stove Works for The Daniel E. Parris Stove Co., Stove Works for The Daniel E. Parris Stove Co., Sioux City, Iowa.



The above illustration shows the interior of a muffle room built by us for the Scoville Mfg. Co., at Waterbury, Conn. The sides are of brick and the roof trusses are iron throughout, no wood work being used, thus making the building absolutely fire-proof.

SEND FOR ILLUSTRATED CATALOGUE

OFFICE & WORKS, - EAST BERLIN, CONN.



A. WYCKOFF & SON, 112 E. CHEMUNG PL.

ATENT STEAM PIPE CASING

For Cold Storage Pipe and Undergo Steam Pipes.

users of WOOD WATER PIPE and Iron Mines, Coke Works

Send for Catalogu and Price-List.





PROVIDENCE, R. L.

ITS ADVANTAGES ARE:

Centralized Point.

Deep Thread on Point.

Thin Thread, Displacing Less Wood,
Reducing Friction, Increasing
Holding Power

Entire Surface Covered with a Metallic Skia.

SAMPLES SENT ON APPLICATION

AMERICAN SCREW CO., Providence, R. I.

# LATEST IMPROVEMENTS. FULLEST LINE,

LARGEST STOCK.

Washing Machines,

Ironing Machines, Centrifugal Machines, Mangles, Wringers, &c.

BOILERS AND ENGINES.

Hotels and Public Institutions. R SPECIALTY.



40 Cortlandt Street, NEW YORK.



F. M. WATKINS,

96, 98 & 100 E. 8th Street, CINCINNA I, OHIO.

# THE ASHTON VALVE CO.'S

For Stationary, Marine, Locomotive and Hoisting Engine Boilers

Instant and Perfect Relief Given. Non-Corrosive and Always Reliable. - ALSO

WATER RELIEF VALVES FOR STEAM PUMPS AND STANDPIPES.

271 Franklin St., Beston, Mass.

New York Office, 107 Liberty St. Branch Office, 218 Lake St., Chicago



## JENKINS BROS.' VALVES.

P very valve tested and warranted, all parts interchangeable.
N othing but best Steam Metal used in the manufacture.

Keyed Stuffing Bex and Disc Removing Lock Nut
I sused only in the Jenkins Bros.' Valves.

ess stamped with Trade Mark." hould you order INSIST on having Jenkins Re

71 John St., New York 21 N. Fifth St., Philads 105 Milk St., Bestes.



OUR PATENT ELASTIC RING, SECTIONAL, SPECIAL WATER PACKINGS, are the best made to Ammonia, High-Speed Work and all places where Packing GARLOCK'S SPECIAL WATER PACKING, fully Guaranteed pumps. See that our Trade Mark is on each package.

pumps. See that our later and pumps solicited. THE CAR! OCK PACKING CO.

MAIN OFFICES: | PALMYRA, N.Y.
ROME, GA. OMAHA, NEB. Chicago, Ill. Pittsburgh, Pa. Our No. 6 1-2 AXLE For Trucks, Express and Dell' Our No. 6 1-2 AXLE CLEVELAND AXLE MFG. CO.,

STREE TURULAR WHEELRARROWS.



